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Emotional capital and the benefits for personal well-being: How positive moments with you might help me too

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Dedication

To Dr. April Allen Buck.

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Abstract

Emotional capital and the benefits for personal well-being: How positive moments with you might help me too

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Couples share many different types of experiences together, but recent research has begun to focus on their ordinary shared positive moments. The theory of emotional capital suggests that the accumulation of positive experiences shared between partners can buffer couples' from the harmful impact relationship threats can have on their marital happiness. Though prior work has demonstrated the benefits of emotional capital for relationship well-being, less attention has been given to the potential benefits for *individual* well-being. Therefore, the first goal of the current project was to extend existing theories of emotional capital to identify whether every day shared positive moments with a partner may similarly buffer the individuals from their personal life challenges experienced outside their relationship. In two daily diary studies, I tested whether emotional capital is associated with reduced reactivity to both daily personal stress and chronic life stress over time. The second goal of the present work was to

investigate an alternative way in which emotional capital may benefit personal well-being. Specifically, I tested whether emotional capital is associated with better mental health indirectly through increasing perceptions of partner support. Supporting my predictions, emotional capital moderated the association between spouses' daily stress and daily mood (Study 1a). In other words, emotional capital was associated with reduced reactivity to personal daily stressors. Contrary to hypotheses, however, emotional capital did not buffer individuals from their chronic stressors (Study 1b) and did not predict better prospective mental health directly or indirectly through increased perceptions of support (Study 2). These findings suggest that emotional capital can have important benefits for personal well-being; however, those benefits may only extend to spouses' immediate context and daily mental health.

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Chapter 1: Introduction to the Current Project & the Theory of Emotional Capital

In romantic relationships, couples engage in many positive experiences together. Shared laughter, intimate conversations, displays of affection, and quality leisure time are just a few of the commonplace, everyday positive experiences that occur in many relationships. Although these positive moments shared between partners may seem small in the broader context of the relationship, they can have important consequences for relationship well-being. For example, going on date nights can benefit couples by promoting better relationship quality (Girme, Overall, & Faingataa, 2014), and shared laughter tends to be associated with greater closeness and support between partners (Kurtz & Algoe, 2015). Furthermore, sharing good news with a partner can enhance commitment, intimacy, and satisfaction within a relationship (Gable & Reis, 2010). Theories of emotional capital have provided one explanation for why everyday shared activities may produce these benefits – the accumulation of positive moments can help protect couples from the potentially harmful consequences of relationship threats (Gottman, 1999). In other words, when couples continuously engage in small positive moments together, they create a store of emotional capital, or relationship wealth, which can serve as a resource for couples to rely on when relationship challenges arise.

Although some prior research provides evidence for the relationship benefits of emotional capital (Feeney & Lemay, 2012; Walsh, Neff, & Gleason, 2017), the personal benefits of shared positive moments with one's partner remain largely unexplored. A closer examination of the literature on close relationships, however, suggests that

accumulating emotional capital building moments with one's partner may also be essential for individuals' personal well-being. For example, one of the most prominent theories in the field, the theory of the need to belong, suggests that humans have an innate and fundamental drive to make connections and feel close to others; if this need goes unfulfilled, this lack of belonging may be highly detrimental for both physical and mental health (Baumeister & Leary, 1995). Supporting this perspective, a wealth of empirical evidence suggests that maintaining high quality romantic relationships is associated with both physical (Kiecolt-Glaser & Newton, 2001) and psychological well-being (Holt-Lunstad, Birmingham, & Jones, 2008). Individuals in higher quality relationships tend to report greater life satisfaction, fewer symptoms of depression, and less stress (Holt-Lunstad, Birmingham, & Jones, 2008). In fact, relationship quality is one of the strongest predictors of general life happiness (Glenn & Weaver, 1981). Moreover, given that people currently rely on their partners to fulfil more of their personal needs than ever before (Finkel, Hui, Carswell, & Larson, 2014), the association between relationship quality and life happiness is even stronger today than it has been in previous decades (Proulx, Helms, & Buehler, 2007). Simply put, good relationships seem to make people happier and healthier.

To better understand why this may be, I propose that the small, daily positive moments that partners accumulate with one another may be associated with better mental health in two ways. First, and similar to previous research illustrating that emotional capital buffers couples' marital satisfaction from potentially harmful relationship

challenges (Feeney & Lemay, 2012; Walsh et al., 2017), emotional capital may protect individuals' mental health and well-being by reducing their emotional reactivity to personal life stressors. Second, emotional capital may also prove beneficial even in the absence of a stress response (Lakey & Orehek, 2011). In other words, regardless of how much stress an individual is facing, emotional capital may be linked to increased perceptions of support within the relationship, which are often associated with reduced risk of developing mental health problems (Lakey & Orehek, 2011). In these ways, the benefits of emotional capital may extend beyond the relationship itself, improving quality of life for each individual.

EMOTIONAL CAPITAL: A THEORY OF RELATIONSHIP RESILIENCE

For decades, research on relationship processes has primarily focused on the darker side of relationships (e.g., the antecedents and consequences of conflict and negativity between partners). More recently, however, there has been a dramatic increase in research focused on the importance of positive relationship experiences. In his seminal work on love and commitment, Hal Kelley was perhaps the first theorist to argue that maintaining a long-term relationship depends on the relative balance of positive and negative experiences within the relationship (Kelley, 1983). In other words, in order to assess the quality and viability of their relationship, partners tend to weigh the specific benefits and costs of the relationship; relationships remain happy and intact when the benefits of being with the partner outweigh the costs. Of course, these evaluations are not always effortful or conscious processes, and the negative and positive relationship

experiences that contribute to partners' assessments do not necessarily occur simultaneously or in close temporal proximity. Rather the general relationship climate, or the ongoing, overall ratio of positive and negative experiences, is evaluated, and new experiences are considered within the overall context of the relationship (Kelley, 1983).

Indeed, prospective research on the early years of marriage demonstrates the importance of the balance of positive and negative experiences. Specifically, when compared to couples who remained married after 13 years, those who divorced reported sharper decreases in daily affection, love, and perceived partner responsiveness in the first two years of marriage (Huston, Caughlin, Houts, Smith, & George, 2001), but did not report significant increases in daily conflict and negativity. In other words, relationship dissolution was associated with a decline in positive moments within the relationship, rather than with an increase in negative moments. Further research suggests that a shift in the ratio of positive to negative relationship experiences may account for these findings. As couples share fewer positive experiences together across the course of their relationship, the imbalance between positive and negative moments can lead negative experiences to become more salient. In other words, when positive moments are lacking, the negative experiences that couples encounter seem to carry more weight for their overall relationship evaluations, leading couples to view their relationship in less favorable ways (Farnish, Crockett, & Neff, 2018).

The theory of emotional capital provides a framework for understanding why the balance of positive and negative relationship experiences may be so important for

relationship outcomes. According to this perspective, as couples accrue positive experiences together, they build emotional capital within the relationship, or an emotional reserve, which can help couples better withstand relational difficulties when they arise (Afifi, Merrill, & Davis, 2016; Gottman, 1999). Specifically, when couples accumulate more positive moments together, they tend to feel a greater sense of cohesion within the relationship, and therefore, are more likely to appraise any relational challenges that occur from a broader, more positive mindset; in essence, emotional capital serves as a "protective cushion" which fosters greater resilience to those potential threats. In contrast, when emotional capital is lacking, the protective cushion that emotional capital provides is diminished, and couples should begin to view negative relationship experiences as more threatening and impactful, resulting in lowered relationship happiness (Afifi et al., 2016).

Importantly, in order to effectively buffer couples from the harmful consequences of relational negativity, a large *accumulation* of emotional capital building experiences may be required, as negative experiences tend to be stronger predictors of relationship stability and satisfaction when compared to positive events (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). For example, when couples negotiate conflict, destructive coping responses tend to be more indicative of relationship outcomes compared to constructive responses (Rusbult, Johnson, & Morrow, 1986), and negative every day interactions are stronger predictors of relationship quality compared to positive interactions (Gottman, 1994). In other words, because a well-established literature

indicates that “bad is stronger than good” (Baumesiter et al., 2001), a wealth of positive moments may be vital to counteract even a single negative relationship experience (Gottman, 1999).

Empirical Evidence Supporting the Theory of Emotional Capital

Supporting this theory, growing empirical research has confirmed that accumulating positive moments with a partner can buffer couples from the harmful impact relationship challenges can have on relationship satisfaction. For example, in an initial 7-day daily diary study, newlywed couples reported the shared positive activities they engaged in with their partner each day as an assessment of daily emotional capital, along with their perceptions of relationship threats (i.e., lack of responsiveness from their partners), positive feelings toward the partner, and relationship satisfaction each day (Feeney & Lemay, 2012). Spouses generally reacted to relationship threats, showing fewer positive feelings and lower relationship satisfaction following days in which they perceived lower responsiveness from their partner; however, supporting the theory of emotional capital, spouses were less reactive when they had shared more positive activities together on the previous day. This study suggests that daily accumulations of emotional capital can protect couples from their day-to-day relationship challenges.

A more recent study also suggests that accumulating emotional capital over time can provide a similar buffering effect. More specifically, in a multi-wave daily diary study, newlywed spouses reported their shared positive experiences, the negative behaviors their partner enacted toward them, and their relationship satisfaction each day

for 14 days (Walsh et al., 2017). They completed this diary task three times across the first three years of marriage, for a total of 42 possible responses from each partner. Again, spouses were reactive to their relationship threats, reporting lower relationship satisfaction on days when they reported experiencing more negativity from their partner; however, spouses who generally accumulated more emotional capital on average across the course of the study were less reactive to their partners' negative behaviors on a daily basis compared to spouses with less emotional capital on average. Furthermore, this finding held when adjusting for spouses' general marital satisfaction, suggesting that shared activities are a unique predictor of reactivity, above and beyond general feelings about the relationship. This second study suggests that it is not only beneficial for couples to share positive moments together on a given day, but cumulatively, those positive moments can develop a resource, which couples can rely on when faced with future challenges.

To better understand why emotional capital may reduce reactivity to relationship threats, a third daily diary study tested a potential mechanism for the buffering effect. The study demonstrated that spouses who generally reported more emotional capital on average across the diary task were not only less reactive to their partners' negative behaviors on average, but they were also more likely to make more benign and forgiving attributions for their partners' negative behaviors (Walsh & Neff, invited resubmission). In other words, they were more likely to give their partner the benefit of the doubt and forgive them for their transgressions compared to spouses who accumulated less

emotional capital. Those appraisals of partners' behaviors partially explained the buffering effect of emotional capital; emotional capital indirectly predicted reduced reactivity to relationship threats through promoting benign and forgiving interpretations for partners' transgressions. Taken together the current body of work specifically testing the role of emotional capital for relationship well-being supports the notion that accumulating everyday shared positive moments with one's partner, (i.e., emotional capital) promotes a broader, more optimistic relationship perspective through which relationship challenges are evaluated, which consequently, reduces the negative impact of relationships threats (Gottman, 1999; Kelley, 1983). Yet, these findings beg the question of how couples build emotional capital. In other words, what exactly is emotional capital?

DEFINING EMOTIONAL CAPITAL

Although research examining the potential benefits of emotional capital is promising, the theoretical definition of the construct has been only vaguely outlined in past work. Along with the general description that emotional capital is an accumulation of experiences in which partners "turn toward versus turn away" from each other (Gottman, 1999, p. 88), it has also been defined as "an accumulated stock of 'relationship wealth' made up of a set of positive, shared emotional experiences" (Feeney & Lemay, 2012, p. 1004), and "the many specific, positive exchanges shared between partners that make partners feel valued by and connected to one another" (Walsh et al., 2017, p. 513). Consolidating these broad descriptions, I define emotional capital here as the *concrete*,

positive exchanges that couples share together and that promote a positive relationship climate. To fully illustrate the construct of emotional capital, I dissect the three key components of this definition.

The first crucial aspect of emotional capital is the shared nature of the moment or experience. In order to contribute to the store of emotional capital, behaviors must be "conveyed to the partner… or experienced with the partner," (Feeney & Lemay, 2012, p. 1005). In other words, both partners must be involved in the experience. Although any positive moment surrounding the relationship may improve personal perceptions of the relationship, *shared* moments are qualitatively different from unshared moments. For example, shared laughter in which partners simultaneously laugh *together* is consistently associated with relationship closeness and perceptions of partner support, while the outcomes associated with unshared laughter, moments in which only one partner laughs, are mixed (Kurtz & Algoe, 2015). Similarly, although feeling gratitude toward a partner has been conceptualized as a "binding" emotion which strengthens relationships by emphasizing positive qualities of the partner and the beneficial nature of the relationship (Algoe, 2012), shared moments in which one individual *expresses* their gratitude toward their partner not only benefits the individual who felt gratitude, but also their partner who was the target of the other-praising expression (Algoe, Kurtz, & Hilaire, 2016). This research on gratitude provides a particularly useful example of how sharing a positive moment with one's partner provides distinct benefits from a positive moment in which the partner is not actively present. It is clear that expressing gratitude directly toward

one's partner would be very different from praising the partner when he or she is absent. In this way, experiences such as talking about the relationship to a friend, enjoying a fun activity without the partner, and simply thinking about the partner or memories associated with the relationship do not contribute to one's store of emotional capital. There are unique benefits which result from *sharing* positive moments, which distinguish emotional capital experiences from other unshared positive moments.

Building on this distinction, the second key component of emotional capital is that the shared experiences consist of concrete, positive behaviors and activities that are exchanged or experienced in the relationship. These can include expressions of affection toward the partner, such as compliments, physical intimacy, or verbal affirmations, as well as shared activities, such as intimate conversations, laughing together, or shared leisure time. Thus, emotional capital building experiences are distinct from relationship cognitions for two reasons. First, cognitions, such as beliefs about a partner's sensitivity to one's needs or relationship satisfaction, are not shared experiences; rather, they are private relationship evaluations that are only experienced by the individual holding the perception. Second, these abstract evaluations represent more global judgments about the relationship in general; in other words, emotional capital experiences represent some of the specific relationship experiences on which more global evaluations about the partner and the relationship are based. Thus, not only are cognitions distinct from emotional capital building experiences, but accumulating emotional capital may actually have downstream effects on individuals' relationship cognitions.

It is important to note that in any relationship, cognitions can influence motivations, interpretations of events, and behaviors (Karney, McNulty, & Bradbury, 2001). As such, general beliefs about the relationship, such as relationship satisfaction, may influence whether specific relationship experiences are perceived as positive and, thus, may *incidentally* affect the accumulation of emotional capital. For example, if Jean is in a highly satisfying relationship, and her husband, Steve, brings home flowers, Jean may perceive it as a display of affection and, thus, gain emotional capital. Conversely, if Mary is unhappy in her relationship with Bill, his flowers may be interpreted as an apology for something he has done wrong. In this case, Bill's act of giving flowers was again a shared concrete experience; however, because Mary attributed the gesture to a negative or self-serving motive as a result of her perceptions of her relationship, the same experience of receiving flowers was not a positive experience, and Mary would not gain emotional capital. Therefore, through altering perceptions of shared concrete experiences, general relationship evaluations may have indirect effects on emotional capital. This suggest that relationship cognitions and accumulations of emotional capital may be cyclical processes, such that general perceptions of the relationship, though not directly contributing to emotional capital as they are neither shared nor concrete experiences, may influence the interpretation of potential emotional capital building experiences. Emotional capital may in turn influence individuals' perceptions of the relationship through altering the overall relationship climate.

The final fundamental aspect of emotional capital is this notion that these shared experiences increase the positive climate within the relationship. Therefore, *any* positive moment which involves both partners and leads the individuals to feel good about their partner or their relationship, "turn toward versus away" from each other, or "feel valued by and connected to one another" builds up "relationship wealth" and can be a resource for couples to rely on when challenges arise. This inclusive aspect of the definition allows a range of experiences from ordinary, routine moments, such as laughing together, to extraordinary, pivotal moments, such as an elaborate marriage proposal, to be emotional capital experiences. The current study and previous research on emotional capital focus solely on the ordinary, everyday experiences which couples can enact on a regular basis (Gottman, 1999; Gottman, Driver, & Tabares, 2002, Feeney & Lemay 2012; Walsh et al., 2017); however, it is important to recognize that both everyday emotional capital experiences as well as more momentous experiences may be resources for couples to rely on when facing relationship challenges.

EMOTIONAL CAPITAL AS A UNIFYING THEME

Based on this understanding of emotional capital, a closer look at existing empirical work reveals that a large number of studies have examined the types of positive relationship experiences which likely contribute to emotional capital. For instance, several lines of research have identified how positive exchanges between partners can promote better relationship quality. As previously mentioned, shared laughter and expressions of gratitude toward a partner are positive moments which serve the function

of enhancing closeness between partners (Algoe et al., 2016; Kurtz & Algoe, 2015), and thus, are likely to contribute to couples' emotional capital reserves. Similarly, successful capitalization attempts, or occasions in which an individual discloses good news to a partner and the partner responds in an active and constructive way (Gable, Reis, Impett, & Asher, 2004), is another such experience that could fall under the overarching construct of emotional capital. When partners provide such positive responses, not only does the couple feel closer, but also the individual who expressed their good news is able to "capitalize" on the event and experience increases in their positive mood, in part, by reliving the good event (Gable, Gonzaga, & Strachman, 2006; Gable et al., 2004). Therefore, active and constructive conversations about the fortunate event are shared behavioral exchanges which can promote a positive relationship climate.

In a similar vein, other lines of research have established the importance of shared relationship activities for relationship well-being. Going on date nights together and simply sharing quality leisure time have been associated with increased relationship satisfaction (Buck, 2015; Girme et al., 2014; Hill, 1988). Moreover, it has been well-established that when partners engage in self-expanding activities together, or novel activities which are pleasant, fun, and/or exciting, these activities serve to alleviate boredom and improve relationship happiness over time (Aron & Aron, 1986; Aron, Norman, Aron, McKenna, & Heyman, 2000; Carson, Carson, Gil, & Baucom, 2007). Therefore, both routine and novel activities have the power to promote a positive relationship climate, and thus may build emotional capital.

The myriad of positive experiences couples can share together, such as capitalization, shared quality time, and self-expansion, as well as the beneficial nature of those shared positive moments are extremely well-documented. However, rather than highlighting the commonalities between these types of experiences, studies investigating the importance of such positive moments often isolate and examine only one type of positive experience. The utility of the theory of emotional capital lies in its ability to provide an overarching framework for how the many different types of positive experiences partners share together can accumulate into a single resource which promotes relationship functioning. In other words, similar to the way in which distinct vulnerabilities can accrue into a cumulative risk that exacerbates the effect specific risk factors have on relationship quality (Rauer, Karney, Gavran, & Hou, 2008), the theory of emotional capital posits that distinct positive experiences can accrue into a cumulative resilience factor which protects or improves relationship functioning above and beyond the impact any one positive exchange could have. Therefore, emotional capital unites the growing literature on relationship positivity by providing a mechanism to explain why all those positive exchanges seem to be so critical for relationship functioning. The accumulation of shared positive moments (i.e., emotional capital) can influence the ways in which spouses perceive and respond to future relationship events, specifically, reducing the harmful impact inevitable negative relationship events can have on a couples' relationship.

Chapter 2: The Current Study

Based on initial empirical research demonstrating the important benefits accumulating positive moments together can have for relationship well-being, in the current study, my goal was to extend this early work to investigate potential personal benefits of emotional capital. Accumulating emotional capital does seem to help couples develop resources which they can draw upon when faced with relationship challenges; do those resources also benefit their own personal well-being? The stress buffering hypothesis provides a theoretical framework for understanding how emotional capital may also protect individuals from general life stress, while the theory of resilience and relational load, relational regulation theory, and research on capitalization describe another pathway through which emotional capital may be beneficial.

Emotional Capital as a Buffer from Personal Life Stress

According to the stress buffering hypothesis, when faced with a negative life event, support from one's partner should buffer the individual from the negative experiences associated with stress, such as negative affect and poor mental health (Cohen & Wills, 1985). In other words, exchanges of support, or supportive acts from the partner, should reduce the impact stress typically has on individuals' well-being. Although this theory is widely accepted by both laypeople and scientists alike, empirical research has often failed to support this hypothesis (Lakey & Orehek, 2011). Instances in which an individual actually receives support from their partner often has null or even negative effects on the individuals' well-being (e.g., Gleason & Iida, 2105; Gremore et al., 2011;

Rafaeli & Gleason, 2009; Uchino, 2009). Ironically, receiving support can increase stress and anxiety (Bolger, Zuckerman, & Kessler, 2000), which are the specific emotions that social support aims to reduce. Additionally, receiving assistance from a partner tends to be unrelated to *feeling* supported by the partner (Gable, Gosnell, Maisel, & Strachman, 2012). In these ways, support exchanges are not always effective in helping individuals successfully weather their life stress.

In contrast to support exchanges, the distinguishing characteristics of emotional capital experiences may indeed protect individuals from their personal stress. For example, one reason support exchanges can have adverse effects on well-being is because receiving support from one's partner in response to a stressor can actually make the stress *more* salient (Gleason & Iida, 2015). Providing help to a partner can also suggest that the partner is not able to cope with the stressor, undermining the partner's sense of competence. Additionally, providing support in the way partners want to be supported can be quite difficult for support providers, and receiving the incorrect type of support tends to increase, rather than decrease, stress and negative affect for the receiver (Rafaeli & Gleason, 2009). Indeed, because support providers often do not meet the needs of their partner, this mismatched support may also explain why receiving support from one's partner does not tend to increase the perceptions that one's partner is, in fact, supportive (Gable et al., 2012).

Emotional capital experiences should be less complicated to enact than effective support exchanges. Emotional capital is accumulated through shared concrete, positive

exchanges. Based on the positive context of the shared moment (i.e., the exchange is not necessarily a behavior enacted in response to stress), emotional capital experiences should not increase the salience of stress or threaten an individual's competence. Also, emotional capital experiences do not involve a mismatch between what an individual wants or needs their partner to do and what the partner actually does. Either a shared moment is perceived as positive and constitutes an emotional capital building experiences or it is not interpreted as a positive moment and does not contribute to couples' emotional reserves. Therefore, although support exchanges can undermine individuals' ability to overcome their stress, emotional capital should not have these deleterious effects. In fact, emotional capital may actually support the basic tenant of the stress buffering hypothesis – close social relationships provide resources that help individuals overcome stressors (Cohen & Willis, 1985).

Empirical work investigating affectional exchanges provides some initial evidence of the stress reducing potential of emotional capital. Specifically, individuals who give and receive verbal and/or physical affection tend to report lower stress levels (Jakubiak & Feeney, 2016). Furthermore, those individuals not only perceive less stress in their lives, but also show healthier physiological stress responses, maintaining more stable blood pressure, glucose, and salivary stress hormone levels in response to personal stressors (e.g., Floyd, Hesse, & Haynes, 2007; Holt-Lunstad, Birmingham, & Light, 2008; Jakubiak & Feeney, 2016). These findings provide some initial evidence

suggesting that everyday shared positive moments may enhance stress adaptation and protect individuals from the adverse effects stress can have on personal well-being.

The theory of resilience and relational load (Afifi et al., 2016) further explains why shared positive moments may provide such a buffering effect. According to this theory, when couples engage in daily emotional capital building experiences (e.g., showing affection, laughing, intimate conversations, expressing gratitude, etc.), they build emotional reserves which may help the individual more effectively overcome their personal life stressors. As partners share positive experiences together, they continue to invest in their relationship, enhancing feelings of closeness and positive perceptions of each other. This relationship maintenance can help individuals feel validated in their relationship and confident in themselves, thereby improving self-efficacy, self-esteem, and coping skills. In this way, building emotional capital with one's partner may create a rich, positive climate through which life stressors are reappraised as less threatening as well as provide personal resources to help individuals overcome their stress. Those everyday positive moments couples share together, therefore, may enhance stress adaptation and protect individuals from the adverse effects stress can have on personal well-being.

BEYOND STRESS BUFFERING: EMOTIONAL CAPITAL & PERCEIVED SUPPORT

The stress buffering effect may not be the only way in which emotional capital benefits well-being; rather, emotional capital may promote better mental health even in the absence of stress. Because emotional capital building experiences are shared positive

moments in which partners invest in their relationship together, the theory of resilience and relational load also suggests that they can promote greater communal orientation (Afifi et al., 2016). In other words, accumulating those moments together can help partners feel more like a team. As a result, the individuals may perceive a larger set of resources available to them, which can be both a combination of their own and their partner's existing resources and new resources such as feeling their partner will be supportive and helpful when needed in the future (Lakey & Orehek, 2011). These resources may certainly help individuals overcome their personal stressors, but the resources themselves can also directly improve mental health regardless of how much stress individuals actually encounter. In other words, feeling capable, supported, and prepared to cope with future stress may provide a boost in mental health regardless of whether that future stress ever occurs.

Indeed, the perception of support, or belief that one's partner is responsive and will available when needed, has been consistently, *directly* linked to better mental health and personal well-being. For example, recent research has illustrated that perceived support is associated with fewer diagnoses of clinical depression, and this link is not a product of a stress buffering effect (Lakey & Cronin, 2008). An extensive review shows that perceived support also directly predicts decreased psychological distress, anger, negative morale, and anxiety (Barrera, 1986) as well as fewer depressive symptoms prospectively (Holahan, Moos, Holahan, & Brennan, 1995). Therefore, the rich positive climate and perceptions of support that develop through shared positive moments may

promote better personal well-being irrespective of the amount of stress an individual faces.

Relational regulation theory mirrors the notion that better mental health is achieved through sharing small meaningful moments with a close significant other (Lakey & Orehek, 2011). In other words, people regulate their thoughts, feelings, and subsequent well-being through "ordinary yet affectively consequential conversations and shared activities," (p. 1). Empirical evidence supports this proposition; ordinary conversations with close others are associated with greater positive and reduced negative affect (Woods, Lakey, & Sain, 2016). Furthermore, extensive research on capitalization exchanges shows that discussions regarding one partner's good news or fortunate events, predicts greater positive affect, self-esteem, life satisfaction, feelings of acceptance, productivity, self-efficacy, and creativity (Gable & Anderson, 2017; Gable & Reis, 2010; Langston, 1994). These studies provide initial evidence that positive conversations, one type of emotional capital building experience, promotes personal well-being.

Research on capitalization also provides initial evidence that emotional capital may indirectly predict better mental health through increasing perceptions of support. The stark differences in the outcomes associated with received and perceived support as well as the paradoxical finding that receiving instances of support does not typically predict feeling supported by one's partner have fueled research aimed specifically at understanding where perceptions of support originate. Daily diary studies focused on individuals' daily positive and negative events occurring external to their relationships

revealed that individuals felt greater understanding, validation, and caring from their partner (i.e., perceived greater responsiveness from their partner) when disclosing positive news compared to negative news on a daily basis (Gable et al., 2012). Daily perceptions of responsiveness to good news disclosures were consistently associated with daily relationship quality, including relationship satisfaction, connections to one's partner, and security in their relationship as well as perceptions of partner support two months later. Therefore, active and constructive responses to each other's good fortunes seem to help partners feel validated and supported in their relationships both at the time of the positively charged conversation, and prospectively, months later (Gable et al. 2012; Shorey & Lakey, 2011). The large body of research documenting the links between perceived support and mental health, coupled with this evidence that perceived support may originate from positive everyday interactions with one's partner suggests that emotional capital more broadly may also indirectly predict better mental health through increased perceptions of support.

OVERVIEW OF THE CURRENT STUDIES

The proposed project was designed to extend the theory of emotional capital, which has thus far focused on the relational benefits of emotional capital, by examining whether sharing daily positive moments with one's partner is associated with better personal well-being. By helping individuals develop resources, emotional capital may be beneficial for individuals in two ways. First, extending the original theory (Gottman, 1999), emotional capital may provide a stress buffering effect; accumulating shared

positive moments with one's partner may protect individuals' mental health from their personal life stressors experienced external to their relationship. Second, emotional capital may help individuals develop a communal orientation, or a team-like relationship, and a feeling that their partner will be available and helpful when needed in the future (Afifi et al., 2016). This supportive relationship climate has been consistently, directly associated with better mental health, regardless of individuals' experiences of stress (Lakey & Orehek, 2011). Thus, emotional capital may also be indirectly associated with better mental health by promoting greater perceived support from one's partner.

In Studies 1a and 1b, I tested whether emotional capital is associated with individuals' emotional responses to personal stress experienced external to their relationship. In Study 1a, I examined whether emotional capital accumulated with a partner is specifically associated with reduced *daily* reactivity to personal life stressors. Analyzing data from 145 long-term married couples who completed a 21-day daily diary task as part of a larger study on relationship processes, I tested whether emotional capital moderates the association between daily life stress and daily mood. In Study 1b, I tested the moderating role of emotional capital on individuals' longer-term mental health. More specifically, using three waves of daily diary data and six waves of questionnaire data collected from a sample of 171 newlywed couples, I examined whether emotional capital buffers the association between chronic life stress and subsequent depression. Finally, in Study 2, I investigated whether emotional capital may be a resource that directly benefits mental health. Using the longitudinal data collected in Study 1b, in Study 2, I tested

whether emotional capital is associated with increased perceptions of support and fewer symptoms of depression prospectively, and whether feeling supported, may partially explains the association between emotional capital and depression.

Chapter 3: Study 1a

Research generally suggests that stress external to relationships negatively influences relationship processes, and minor, daily stressors tend to be particularly detrimental (e.g., Randall & Bodenmann, 2009). Unlike major stressors, minor stressors (e.g., work, traffic, family life, etc.) often occur outside of conscious awareness; consequently, individuals do not dedicate necessary resources to cope with and overcome the stress (Randall & Bodenmann, 2009; Tesser & Beach, 1998). As a result, minor stressors can become chronically depleting, increasing the likelihood of developing psychological disorders and physical ailments (e.g. Juster, McEwen, Lupien, 2010). Because daily stress seems to be particularly harmful, in Study 1a, I focused on emotional capital and individuals' daily reactivity to life stressors. More specifically, I tested whether everyday emotional capital moderated the associations between daily personal stress and both daily positive and daily negative mood. Using a 21-day daily diary task collected from both partners of younger (ages 30-45 years) and older (age 60 years and older) married couples, I tested my predictions that:

H1-i: spouses who reported more emotional capital on average across the daily diary task would show a weaker (negative) association between daily reports of stress and daily reports of positive mood compared to spouses with less emotional capital, and

H1-ii: spouses who reported more emotional capital on average across the daily diary task would show a weaker (positive) association between daily reports of stress and daily reports of negative mood compared to spouses with less emotional capital.

I also explored the moderating effects of *daily* emotional capital on the associations between daily stress and mood. In other words, on a given day when an individual reports more emotional capital than they typically report, does that person show a weaker association between daily stress and mood compared to a day with less emotional capital? Previous empirical research on the effects of daily emotional capital is mixed. In one 7-day daily diary task, researchers found that participants were less reactive to relationship threats on days when they reported accumulating more emotional capital the previous day (Feeney & Lemay, 2012); however, a multi-wave 14-day daily diary study did not find support for the buffering effect of daily emotional capital (Walsh et al., 2017). Therefore, due to inconsistent findings regarding the effects of daily emotional capital, I did not have specific hypothesis for these effects.

Within this study, I also explored the role age may play in moderating the buffering effect of chronic and daily emotional capital. Previous research indicates that in order to regulate their emotions, older adults minimize or avoid negative experiences and enhance positive experiences, and they do so to a greater extent than younger adults (Carstensen, Fung, & Charles, 2003; Mather & Carstensen, 2005). More specifically, older adults exhibit attentional biases toward positively valenced stimuli or experiences, which allow them to generally maintain more pleasant emotions (Mather & Carstensen, 2003; Mather, Knight, & McCaffrey, 2005). When negative experiences cannot be minimized or stressors are unavoidable, however, older adults show steeper declines in well-being compared to younger adults (Charles, 2010; Piazza, Charles, Stawski, &

Almeida, 2013). In other words, although older adults try to and often successfully avoid or reinterpret negative experiences, they tend be more reactive to negativity when it is actually encountered. Applying the theory of emotional capital to these previous findings, older adults may attend to and value their everyday shared positive experiences with their partner more, and as a result, emotional capital may create an even more powerful cushion or buffer from the consequences of daily stress. On the other hand, because older adults are generally more reactive to negative experiences when they are unavoidable or cannot be reappraised, they may show a weaker buffering effect compared to younger adults.

Finally, in this study, I also control for the effects of general marital satisfaction and neuroticism. As previously outlined, emotional capital is distinct from overall relationship evaluations, including general marital satisfaction; however, relationship cognitions can influence whether an individual accumulates emotional capital either by altering one's motivations (e.g., unhappy couples may be less likely to share positive moments together) or perceptions of a shared moment (e.g., unhappy couples may be less likely to perceive shared leisure time as positive). Accumulations of emotional capital can also, in turn, influence overall relationship evaluations by *promoting a positive relationship climate*. It is clear then that although relationship cognitions and emotional capital are distinct processes, they are related. Including the effects of general marital satisfaction in the current study, allows me to parse the buffering effect of emotional capital from the effects of overall relationship happiness. Additionally, including

neuroticism as a control variable allowed me to account for trait-level emotional reactivity in individuals' daily reported moods. In other words, because some spouses may naturally experience greater affective instability and more negative emotionality overall, I controlled for this individual difference when examining fluctuations in daily mood, reactivity to daily stress, and the buffering effect of emotional capital.

METHOD

Participants

One hundred fifty-two married couples were recruited to participate in a broader study of relationship experiences across the lifespan.[1] As part of the broader study, both participants in the couples were required to be either 30-45 years of age (younger group; N = 80 couples) or over 60 years of age (older groups; N = 72 couples). Couples were recruited through online websites (e.g., Facebook), as well as local flyers, newspapers, community centers, and events (e.g. farmers' markets and organized campus symposiums). Before beginning the study, couples were screened to ensure (a) they had been married at least 10 years; (b) their health was the same or better than people their age; and (c) they were involved in organized activities, volunteer activities, and/or time

[1] In addition to this sample of married couples, dating couples were also recruited to participate in the broader investigation of relationship processes; however, because the data collection for non-married couples has not been completed, the groups are currently highly imbalanced. Therefore, in the current study, only married couples were included.

with friends and family at least several times a year (i.e., not socially isolated; cf. Brown & Shinohara, 2013; Charles & Carstensen, 2008).[2]

On average, wives and husbands in the younger group were 37.6 (SD = 3.57) and 38.4 (SD = 3.3) years old, respectively, while wives and husbands in the older group were 65.0 (SD = 4.5) and 67.3 (SD = 5.4) years old. Approximately 68.4% of younger wives identified themselves as White, 21.5% as Hispanic/Latino, 1.3% as African-American, 3.8% as Asian-American, and 5.1% as Other. Approximately 72.5% of younger husbands identified themselves as White, 20% as Hispanic/Latino, 3.8% as African-American, 1.3% as Asian American, and 2.5% as Other. Approximately 93.1% of older wives identified themselves as White, 5.6% as Hispanic/Latino, and 1.4% as African-American. Approximately 90% of older husbands identified themselves as White, 2.8% as Hispanic/Latino, 4.2% as African-American, 1.4% as Asian American, and 1.4% did not provide a response.

The majority of participants completed a Bachelor's Degree or higher (69.5% of younger wives, 58.8% of younger husbands, 77.8% of older wives, and 79% of older husbands) and the average household income was between $60,000 and $70,000 for younger couples and between $70,000 and $80,000 for older couples. The current study

[2] Previous research has shown that single older adults tend to be more socially isolated than dating older adults (Brown & Shinohara, 2013). Because dating couples were also recruited to participate in the broader investigation of relationship processes, all couples were required to be socially connected in order eliminate potential confounds across the dating and married samples.

is based on the 288 spouses who completed at least two of the daily surveys described below.[3]

Procedure

Once couples were deemed eligible for participation, each spouse was emailed a link to a large background questionnaire to complete independently at home. Following this questionnaire, couples were invited to participate in a laboratory session[4] not relevant to the current study. After the lab session, spouses were asked to each complete a 21-day diary task, which they chose to complete either online or on paper. Only one spouse elected to complete paper surveys; all remaining spouses chose the online surveys. Each evening (typically at 8pm), spouses were emailed a unique link to complete the survey. To ensure spouses completed their daily diaries on the proper day and did not complete several days at once, the link expired early the following morning (typically at 3am). The participant who completed the paper survey was given all 21 surveys and pre-stamped envelopes during the laboratory session, and was instructed to complete one survey each night before going to bed then to mail the survey the following morning. Each spouse was paid $40 for the background questionnaire and lab session and received up to $35 for completing the daily surveys.

[3] An additional two participants completed the first day of the diary task; however, because the analyses in the current study (described below) included participants' previous-day mood as a predictor variable, the outcome measure (i.e., positive or negative mood) was assessed only on Days 2-21 of the diary task. Therefore, these two participants did not provide enough diary days to have an outcome measure to estimate in the analyses, and thus, their responses did not contribute to the results presented in this study.

[4] In the laboratory session, couples completed a relationship history interview and engaged in a series of video recorded conversations designed to elicit potential supportive and conflictual interactions. Participants also completed short questionnaires before and after each recorded discussion. In addition, participants received instructions to complete the daily diary task.

Overall, 290 (95%) spouses completed at least one daily survey; 129 (42%) spouses completed all 21 daily surveys, and an additional 113 (37%) spouses completed 18-20 days. Spouses provided a total of 5,492 daily surveys (2,699 husbands, 2,793 wives), with each spouse providing an average of 19 daily surveys. As data was examined using multilevel modeling techniques, participants who did not provide all 21 days were still included in the analyses. All results are based on data from the 288 spouses who completed at least two daily surveys.

Daily Diary Measures

Daily Stress and Hassles

In order to measure spouses' subjective experiences of stress, participants responded to a single face valid item (i.e., "Overall, how stressful was your day today?") each day. Responses were recorded on a 7-point Likert scale (1 = Not at all; 7 = Extremely), with higher scores indicating greater perceived daily stress. In addition, participants also completed a more objective measure of stress, namely, daily hassles. Specifically, spouses completed a 15-item checklist including frequent hassles or stressors they may have experienced each day (1 = yes, occurred; 0 = no, did not occur). Example items included "A lot of household chores," "Problems with transportation," and "Disagreement or tension with children." One item, "Disagreement or tension with family," was excluded in order to ensure that the hassles reflected only experiences occurring external to their marriage. A summed composite score of this checklist was

created for each spouse on each day, with higher scores indicating more stressful events experienced that day.

Both the perceived stress measure and daily hassles checklist assessed each spouse's daily fluctuations of stress experiences. Thus, these measures were used to examine whether perceptions of stress or reported hassles on a given day is associated with spouses' mood that same day. However, to adjust for the fact that some individuals likely experience greater stress on average compared to other individuals, measures of overall levels of perceived stress and of daily hassles were also created for each spouse by averaging their reports of their daily stress and hassles across all diary days.

Daily Mood

In order to assess daily positive and negative mood, participants completed a shortened version of the Profile of Mood States (POMS; McNair, Lorr, & Droppleman, 1971). Similar to previous research using a shortened daily POMS measure (Cranford et al., 2006), participants used a 7-point Likert scale (0 = Not at all; 6 = Extremely) to indicate the extent to which they experienced 14 different moods in the previous 24 hours. Separate composite scores for positive and negative mood were created by averaging the scores of the three positive items (i.e., cheerful, lively, and fulfilled) and the 11 negative items (e.g., discouraged, resentful, and angry). Both composite scores could range from 0 to 6, and higher scores on each composite scale indicated greater positive and negative mood, respectively.

Chronic Emotional Capital

Participants were presented with a checklist of 18 experiences they could have shared with their partner each day and were asked to indicate which experiences occurred that day (1 = yes, occurred; 0 = no, did not occur). Thirteen of these experiences included emotional capital building experiences (e.g., "Enjoyed a leisure activity together," "Laughed together," "Shared a pleasant meal together," and "Had an intimate conversation").[5] Summed composite scores of these items were created for each spouse on each day, with higher scores indicating greater daily emotional capital. Similar to the stress measures, these daily composite scores measured participants' daily fluctuations, or within-person variation, in emotional capital and was, thus, used to determine whether emotional capital on a given day is associated with weaker daily emotional responses to stress. As previous research on the effects of daily emotional capital are mixed, in the current study I focused on chronic, or average, emotional capital, which reflects the between-person variation in daily reports of emotional capital across all diary days. The chronic emotional capital score was used to assess whether individuals who reported more emotional capital on average were less reactive to daily stress compared to individuals with less emotional capital.

[5] Four of the remaining items in the checklist represented other daily mundane shared experiences (i.e., "Completed indoor household chores," "Completed outdoor household chores," "Ran mundane errands," and "Attended an appointment"). Although these additional items are all small routine moments shared with a partner, they are not inherently positive exchanges, and I would not necessarily expect those shared experiences to improve overall relationship climate. Thus, these items were not included in the measures of emotional capital. Finally, one additional item in the checklist that was not included in the emotional capital measure represented a negative shared experience (i.e., "had a disagreement ").

Background Measures

General Marital Satisfaction

As part of the background questionnaire, spouses completed the 16-item Couples Satisfaction Index (CSI; Funk & Rogge, 2007) to control for general relationship quality. As previously mentioned, it is possible that relationship cognitions or overall evaluations of the relationship may indirectly influence whether individuals perceive small ordinary exchanges as positive and, thus, whether they accumulate emotional capital. In addition, research has consistently documented an association between relationship quality and mental health (Holt-Lunstad, Birmingham, & Jones, 2008). Therefore, the CSI was included in the current study to control for any effects general marital satisfaction may have on the accumulations and/or stress buffering potential of emotional capital. Spouses rated items such as "My relationship with my partner makes me happy" on a six-point scale (0 = not at all true and 5 = completely true), while one item was assessed on a seven-point scale ("In general, how often do you think things between you and your partner are going well?"). Summed composite scores were created and could range from 0 to 81, with higher scores indicating greater marital quality.

Neuroticism

As part of the background questionnaire, spouses completed the Ten-Item Personality Inventory (TIPI; Gosling, Rentfrow, & Swann, 2003) as a brief measure of the Big-Five personality dimensions. Relevant to the current study, two items captured participants' levels of neuroticism or their negative emotionality. Using a 7-point Likert

scale (1 = Strongly Disagree; 7 = Strongly Agree), participants indicated the extent to which the descriptions "Anxious, easily upset" and "Calm, emotionally stable" (reverse coded) were characteristic of them. Composite scores were created for each individual by averaging these two items and could range from 1 to 7, with higher scores indicating greater neuroticism. This measure was included to control for trait level emotional instability when assessing participants' daily mood.

Age

As the data were collected as part of a larger study of relationship processes across the lifespan, participants were specifically recruited to be between the ages of 30 and 45 or over 60 years of age. A dichotomous variable was created to indicate the age group of the couple (0 = younger couples; 1 = older couples), and this variable was included to control for potential age effects when testing the buffering effect of emotional capital. Additionally, in auxiliary analyses, this variable was included to explore whether the buffering effect of emotional capital may be moderated by the age of the couple.[6]

[6] Although relationship length could also be a covariate of interest, it was not included in the current study due to issues of collinearity. Specifically, relationship length was bimodal with younger couples clustered around shorter relationship lengths and older couples clustered around longer relationship lengths. Younger couples, on average, reported relationship lengths of approximately 17.5 years (*SD* = 4.2), while older couples reported relationship lengths of approximately 41 years (*SD* = 8.4). Thus, age and relationship length were highly correlated in this study (r = .87) and it was not appropriate to include both measures in the analyses described below.

RESULTS

Descriptive Statistics

Means and standard deviations for all variables of interest are reported in Table 1, and within-person and within-couple correlations are presented in Table 2. On average across the diary days, spouses generally reported low levels of daily stress and negative mood and reported high levels of daily positive mood. Additionally, participants reported experiencing hassles on 76% of days and shared positive moments with their partner on 92% of days, averaging approximately 3.6 shared positive moments each day. Prior to conducting analyses, all predictor variables were rescaled to a 0 – 10 scale to ease interpretation of the results. This procedure allows for direct comparisons between all coefficients without altering the significance of the coefficients (see Bolger & Laurenceau, 2013).

Table 1. *Descriptive Statistics for Study 1a Variables of Interest*

	Younger Couples				Older Couples			
	Wives		Husbands		Wives		Husbands	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Daily Stress	3.29	1.55	3.43	1.54	2.55	1.59	2.53	1.57
Daily Hassles	1.52	1.18	1.56	1.11	0.91	0.87	1.05	0.92
Daily Positive Mood	4.62	1.25	4.34	1.22	4.93	1.29	4.89	1.29
Daily Negative Mood	2.12	1.01	2.15	1.02	1.56	0.87	1.49	0.71
Daily Emotional Capital	3.58	2.56	3.30	2.50	3.49	2.29	3.96	2.44
Relationship Length	17.34	4.25	17.59	4.28	41.06	8.37	41.19	8.61
General Marital Satisfaction	54.13	6.92	53.27	7.78	54.87	5.41	55.96	5.22
Neuroticism	3.45	1.38	3.05	1.14	2.68	1.31	2.49	1.13

Note: All means were calculated from the raw data prior to rescaling. Variable ranges are daily stress: 1-7, daily hassles: 0-14, daily positive and negative mood: 0-6, daily emotional capital: 0-13, relationship length:10.5-59 years, general marital satisfaction: 0-81, and neuroticism: 1-7. The daily emotional capital measure presented in the table is similar to the within-person centered variable used in the multilevel modeling analyses; however, the measure in the table is the raw tally of participants' daily share positive moments.

Table 2. *Correlations for Study 1a Variables of Interest*

	Correlations						
	1	2	3	4	5	6	7
1. Daily Stress	**0.32**	0.45	-0.33	0.57	-0.22	-0.20	0.18
2. Daily Hassles	0.52	**0.26**	-0.18	0.34	-0.04	-0.09	0.08
3. Daily Positive Mood	-0.42	-0.25	**0.29**	-0.40	0.39	0.36	-0.21
4. Daily Negative Mood	0.59	0.42	-0.42	**0.41**	-0.24	-0.39	0.27
5. Daily Emotional Capital	-0.23	-0.08	0.32	-0.17	**0.56**	0.23	-0.20
6. General Marital Satisfaction	-0.22	-0.13	0.22	**-0.27**	0.21	**0.58**	-0.22
7. Neuroticism	0.13	0.07	-0.21	0.26	-0.06	-0.06	**0.04**

Note: Wives' correlations are presented below the diagonal and husbands' correlations are presented above the diagonal. Bolded correlations on the diagonal are the within-couple correlations. The daily emotional capital measure presented in the table is similar to the within-person centered variable used in the multilevel modeling analyses; however, the measure in the table is the raw tally of participants' daily shared positive moments rather than the rescaled measure used in the analyses.

Establishing Reactivity to Daily Stress and Hassles

In order to examine whether emotional capital may moderate individuals' reactivity to daily personal stressors, it was first necessary to model the association between daily stressors and daily mood. I ran four separate random intercept models, each including one measure of stress (i.e., perceived stress or daily hassles) independently predicting positive or negative mood. I used multilevel modeling (MLM) analyses to account for the nested nature of the data (i.e., daily reports nested within person, nested within couple). More specifically, I used the MIXED procedure in SAS 9.4 software (SAS Institute Inc., 2012) to simultaneously model the within- and between-person levels of analyses. Degrees of freedom were determined using Satterthwaite approximation (Kenny, Kashy, & Cook, 2006).

At the within-person level of analysis, daily mood (M_{ijk}) was modeled as a function of previous-day mood (M_{ik-1}) and same-day stress (S_{ik}; see Equation 1 below). Including previous-day mood is a common strategy used in MLM in order to address issues of causality. Specifically, because MLM results only provide correlational associations, modeling daily mood as a function of previous-day mood adjusts for the autocorrelation between individuals' day-to-day mood. The coefficient associated with previous-day mood is often significant and negative reflecting the tendency for regression to one's mean (i.e. if negative mood is high today, it is likely to be lower tomorrow, etc.). This adjustment allows the outcome to be interpreted as residualized change in daily mood and the coefficients of interest in the model to represent the association between those variables and changes in daily mood. Therefore, in this analysis I measured residualized change in daily mood predicted by participants' daily experiences of stress.

Both previous-day mood and same-day stress were within-person centered (centered on each spouse's average across days) so the intercept (b_{owj}) represented each spouse's daily mood when their daily stress and previous-day mood were at that individual's average. In addition, I also included a time variable which represented day in the study (DS_{ik}) to account for any changes across the course of the diary days, a day of the week variable (DW_{ik}) to adjust for any weekend effects on mood, and an error term (e_{ik}). The within-person equation was:

$$M_{ijk} = (W_{ik}) * (b_{owj} + b_{1w}M_{ik-1} + b_{2w}DS_{ik} + b_{3w}DW_{ik} + b_{4w}Si_{k} + e_{ik}) +$$
$$(H_{ik}) * (b_{ojh} + b_{1h}M_{ik-1} + b_{2h}DS_{ik} + b_{3h}DW_{ik} + b_{4h}S_{ik} + e_{ik}) \quad (1)$$

The dependent variable (M_{ijk}) was daily mood for partner *i* (when *i* = 1, the outcome is for the wife, and when *i* = 0, the outcome is for husbands), in couple *j* at time *k*. This was a dual intercept model, such that when the outcome was measured for the wife, W_{ik} =1 and H_{ik}= 0, the first part of the model is selected with all of the *b* coefficients maintaining the subscript *w*. When the outcome was measured for the husband, W_{ik} = 0 and H_{ik} = 1, the second part of the model is selected with all of the *b* coefficients maintaining the subscript *h*. The regression intercept (b_{ojk}) for individual *i* in couple *j* represents daily mood on a weekday at the beginning of the study when yesterday's mood and today's stress are at their projected average level for each individual.

The covariates general relationship satisfaction and neuroticism were between-person (i.e., grand mean) centered and were included as main effects at the between person level of analysis along with the dichotomous dummy-coded age variable (0 = younger couples, 1 = older couples). In order to specifically estimate daily stress (i.e., the within-person effects of stress; b_{4w}), I also included spouses' average (i.e., grand mean centered) daily stress at the between-person level of analysis. Doing so allowed me to fully separate the within- and between-person effects of stress. Between-person stress, or average stress, indicates whether a spouse typically reported more or less stress on average across the diary task compared to the rest of the sample. Thus, the effect of between-person stress indicates whether spouses' daily moods were associated with their general, average stress. Alternatively, within-person stress, or daily stress, indicates whether a spouse reported more or less stress on a given day compared to that spouse's

average report of daily stress across the diary task. The effect of daily stress, which is the effect of interest, indicates whether spouses' daily moods were associated with fluctuations in their stressful experiences reported each day.

As previously mentioned, I ran these analyses four times, in order to model positive mood as a function of daily perceptions of stress, positive mood as a function of daily hassles, negative mood as a function of daily perceptions of stress, and negative mood as a function of daily hassles. The full results from these models are presented in Tables 3-6. Both daily stress and daily hassles significantly, inversely predicted same-day positive mood for both wives and husbands, such that on days when spouses reported feeling greater stress or experiencing more hassles, they reported less positive mood compared to days with less stress or fewer hassles (Tables 3 and 4, respectively). Additionally, both daily stress and daily hassles significantly positively predicted same-day negative mood for both wives and husbands, such that on days when spouses reported feeling greater stress or experiencing more hassles, they reported more negative mood compared to days with less stress or fewer hassles (Tables 5 and 6, respectively). Thus, spouses were reactive to their stressful experiences, showing reduced positive mood and increased negative mood on more stressful days.

Table 3. *The Association between Daily Stress and Daily Positive Mood*

	Wives					Husbands				
	b	*SE*	*p*	95% CI		*b*	*SE*	*p*	95% CI	
				LL	UL				LL	UL
Intercept	5.054	0.111	<.001	4.836	5.272	4.747	0.115	<.001	4.520	4.973
Previous-Day Positive Mood	-0.107	0.019	<.001	-0.144	-0.070	-0.128	0.020	<.001	-0.167	-0.090
Day	-0.017	0.004	<.001	-0.025	-0.009	-0.020	0.004	<.001	-0.028	-0.013
Weekday	-0.147	0.038	<.001	-0.222	-0.073	-0.123	0.038	.001	-0.198	-0.047
Daily Stress	-0.132	0.008	<.001	-0.147	-0.117	-0.126	0.008	<.001	-0.142	-0.110
Average Stress	-0.210	0.043	<.001	-0.296	-0.125	-0.081	0.046	.079	-0.171	0.009
Age Category	-0.045	0.150	.765	-0.342	0.252	0.236	0.160	.142	-0.080	0.552
Neuroticism	-0.074	0.030	.016	-0.134	-0.014	-0.052	0.038	.172	-0.128	0.023
General Marital Satisfaction	0.207	0.098	.037	0.012	0.402	0.448	0.095	<.001	0.261	0.635

Note. *DF* were calculated using Satterthwaite and ranged from 139 – 2377.

Table 4. *The Association between Daily Hassles and Daily Positive Mood*

	Wives					Husbands				
	b	*SE*	*p*	95% CI		*b*	*SE*	*p*	95% CI	
				LL	UL				LL	UL
Intercept	5.090	0.119	<.001	4.855	5.325	4.774	0.118	<.001	4.541	5.007
Previous-Day Positive Mood	-0.174	0.020	<.001	-0.213	-0.136	-0.198	0.020	<.001	-0.238	-0.159
Day	-0.017	0.004	<.001	-0.026	-0.009	-0.021	0.005	<.001	-0.030	-0.013
Weekday	-0.208	0.039	<.001	-0.285	-0.131	-0.180	0.040	<.001	-0.258	-0.101
Daily Hassles	-0.214	0.027	<.001	-0.267	-0.161	-0.185	0.029	<.001	-0.241	-0.128
Average Hassles	-0.467	0.165	.005	-0.793	-0.141	-0.148	0.159	.355	-0.463	0.167
Age Category	-0.014	0.166	.931	-0.343	0.314	0.285	0.159	.076	-0.030	0.600
Neuroticism	-0.088	0.032	.006	-0.151	-0.026	-0.061	0.038	.106	-0.136	0.013
General Marital Satisfaction	0.295	0.101	.004	0.096	0.494	0.474	0.093	<.001	0.289	0.659

Note. *DF* were calculated using Satterthwaite and ranged from 139-2358.

Table 5. *The Association between Daily Stress and Daily Negative Mood*

	Wives					Husbands				
	b	*SE*	*p*	95% CI		*b*	*SE*	*p*	95% CI	
				LL	UL				LL	UL
Intercept	2.111	0.067	<.001	1.980	2.243	2.110	0.065	<.001	1.982	2.238
Previous-Day Negative Mood	-0.075	0.017	<.001	-0.109	-0.041	-0.060	0.018	.001	-0.095	-0.024
Day	-0.012	0.003	<.001	-0.017	-0.007	-0.012	0.003	<.001	-0.017	-0.007
Weekday	-0.062	0.028	.027	-0.117	-0.007	-0.019	0.027	.486	-0.071	0.034
Daily Stress	0.166	0.006	<.001	0.155	0.178	0.141	0.006	<.001	0.130	0.152
Average Stress	0.224	0.025	<.001	0.174	0.274	0.169	0.025	<.001	0.119	0.218
Age Category	-0.206	0.087	.020	-0.378	-0.033	-0.293	0.087	.001	-0.466	-0.121
Neuroticism	0.058	0.018	.001	0.023	0.093	0.045	0.021	.032	0.004	0.087
General Marital Satisfaction	-0.157	0.057	.007	-0.271	-0.044	-0.279	0.052	<.001	-0.381	-0.176

Note. *DF* were calculated using Satterthwaite and ranged from 139-2336.

Table 6. *The Association between Daily Hassles and Daily Negative Mood*

	Wives					Husbands				
	b	*SE*	*p*	95% CI		*b*	*SE*	*p*	95% CI	
				LL	UL				LL	UL
Intercept	2.058	0.076	<.001	1.907	2.208	2.135	0.073	<.001	1.991	2.279
Previous-Day Negative Mood	-0.181	0.019	<.001	-0.218	-0.145	-0.180	0.019	<.001	-0.218	-0.142
Day	-0.014	0.004	.001	-0.021	-0.007	-0.015	0.003	<.001	-0.021	-0.008
Weekday	0.007	0.031	.827	-0.055	0.069	0.039	0.029	.181	-0.018	0.097
Daily Hassles	0.282	0.021	<.001	0.240	0.324	0.219	0.021	<.001	0.178	0.260
Average Hassles	0.703	0.097	<.001	0.511	0.894	0.381	0.092	<.001	0.198	0.564
Age Category	-0.148	0.099	.138	-0.343	0.048	-0.382	0.094	<.001	-0.568	-0.196
Neuroticism	0.075	0.019	<.001	0.038	0.111	0.066	0.022	.003	0.023	0.110
General Marital Satisfaction	-0.207	0.060	.001	-0.325	-0.089	-0.315	0.054	<.001	-0.423	-0.207

Note. *DF* were calculated using Satterthwaite and ranged from 138-2377.

The Protective Effects of Emotional Capital

To test the moderating role of emotional capital, I ran the previous outlined models, including both daily and chronic emotional capital in order to separate the within- and between-person effects of emotional capital. Within-person centered emotional capital (centered on each spouse's average across days) was included at the within-person level of analysis as both a main effect and interacted with daily stress. Although this effect was only exploratory in the current study, when predicting positive mood, a significant positive interaction would suggest that when individuals accumulate more emotional capital on a given day, they exhibit a weaker association between daily stress and daily positive mood on that day compared to a day in which they accumulate less emotional capital. When predicting negative mood, a significant negative interaction would suggest that when individuals accumulate more emotional capital on a given day, they exhibit a weaker association between daily stress and daily negative mood on that day compared to a day in which they accumulate less emotional capital.

To fully separate the within- and between-person effects, between-person (i.e., grand-mean) centered emotional capital, or chronic emotional capital, was also included at the between-person level of analysis as a main effect and interacted with daily stress. As hypothesized, when predicting positive mood, a significant positive interaction would suggest that individuals who generally accumulate more emotional capital on average across the diary days exhibit a weaker association between daily stress and daily positive mood compared to individuals who generally accumulate less emotional capital. When predicting negative mood, a significant negative interaction would suggest that

individuals who generally accumulate more emotional capital on average across the diary days exhibit a weaker association between daily stress and daily negative mood compared to individuals who generally accumulate less emotional capital. Again, I ran four separate models to determine whether emotional capital predicts a weaker association between daily perceptions of stress/daily hassles and positive/negative mood. The full results from these models are presented in Tables 7-11.

Daily Emotional Capital

Beginning with the results for daily emotional capital and positive mood, results of the exploratory within-person analyses indicated that daily emotional capital not only predicted more positive mood on a given day, but also significantly moderated the association between daily perceptions of stress and same-day positive mood for wives (Table 7; Figure 1). Specifically, simple slope analyses (Table 8) indicated that the effect of daily perceived stress on positive mood was weaker, but not eliminated, on days in which wives accumulated more compared to less emotional capital. Although daily emotional capital also predicted greater same-day positive mood for husbands, it did not moderate the association between their perceptions of stress and same-day positive mood. Notably, however, the strength of the moderating effect did not differ between wives and husbands ($F(3314) = 1.56$, $p = .22$), indicating that there was not a significant gender difference. Finally, daily emotional capital did not moderate the associations between daily *hassles* and same-day positive mood for wives or husbands (Table 9).

Figure 1

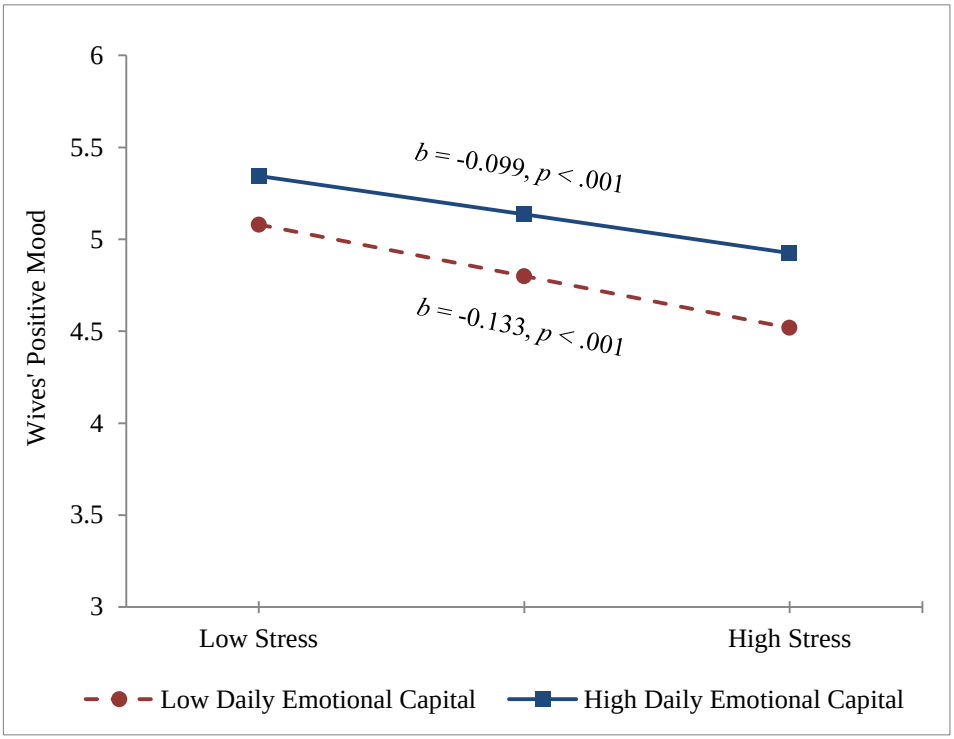

Figure 1. The significant buffering effect of daily emotional capital on the association between daily perceptions of stress and positive mood for wives. Shown here is also the significant positive main effect of daily emotional capital on positive mood. Possible scores for positive mood ranged from 0-6 (M = 4.77; SD = 1.28).

When focusing on daily *negative* mood, daily emotional capital not only predicted lower negative mood on a given day, but also significantly moderated the association between daily perceptions of stress and same-day negative mood for both wives and husbands (Table 10; Figure 2). Specifically, simple slope analyses (Table 8) indicated that the effect of daily perceived stress on negative mood was weaker, but not eliminated, on days in which wives and husbands accumulated more compared to less emotional capital. Daily emotional capital also significantly moderated the association between

Figure 2

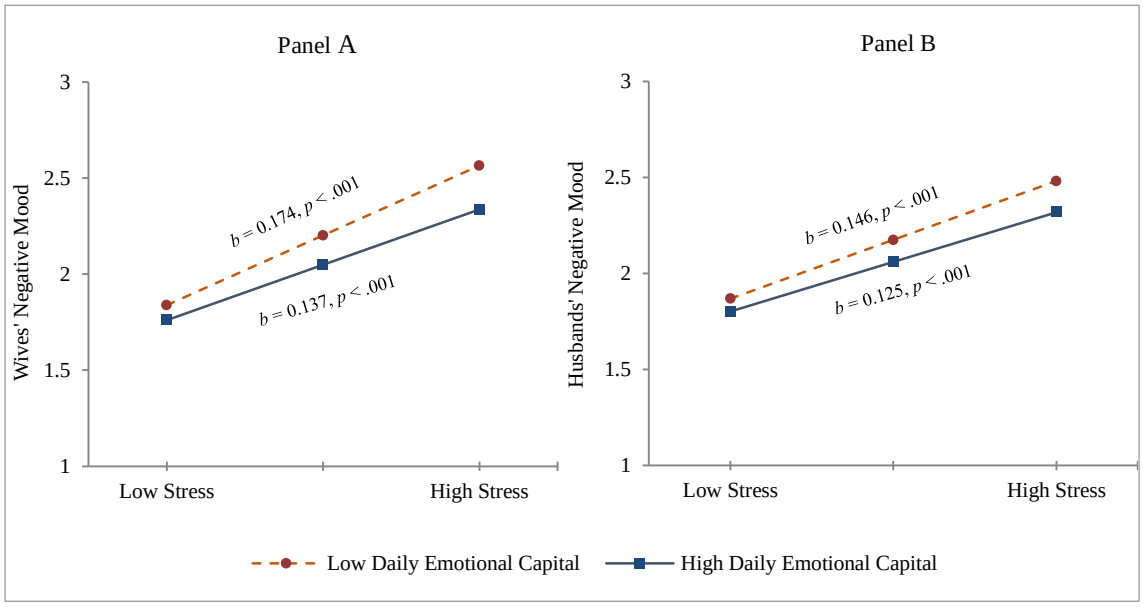

Figure 2. The significant buffering effect of daily emotional capital on the association between daily perceptions of stress and negative mood for wives (Panel A) and husbands (Panel B). Shown here is also the significant negative main effect of daily emotional capital on negative mood for both wives and husbands. Possible scores for negative mood ranged from 0-6 (M = 1.85; SD = 1.00).

daily hassles and same-day negative mood for wives (Table 11; Figure 3). Simple slope analyses (Table 8) again indicated that the effect of daily hassles on negative mood was weaker, but not eliminated, on days in which wives accumulated more compared to less emotional capital. Daily emotional capital, however, did not moderate the association between daily hassles and same-day negative mood for husbands; yet, the strength of this moderating effect again did not differ between wives and husbands ($F(2796) = 2.55$, p = .11).

Taken together, these results suggest that although daily stress and daily hassles consistently predicted poorer mood (i.e., lower positive or greater negative mood), these associations were typically weaker on days when spouses accumulated more emotional

Figure 3

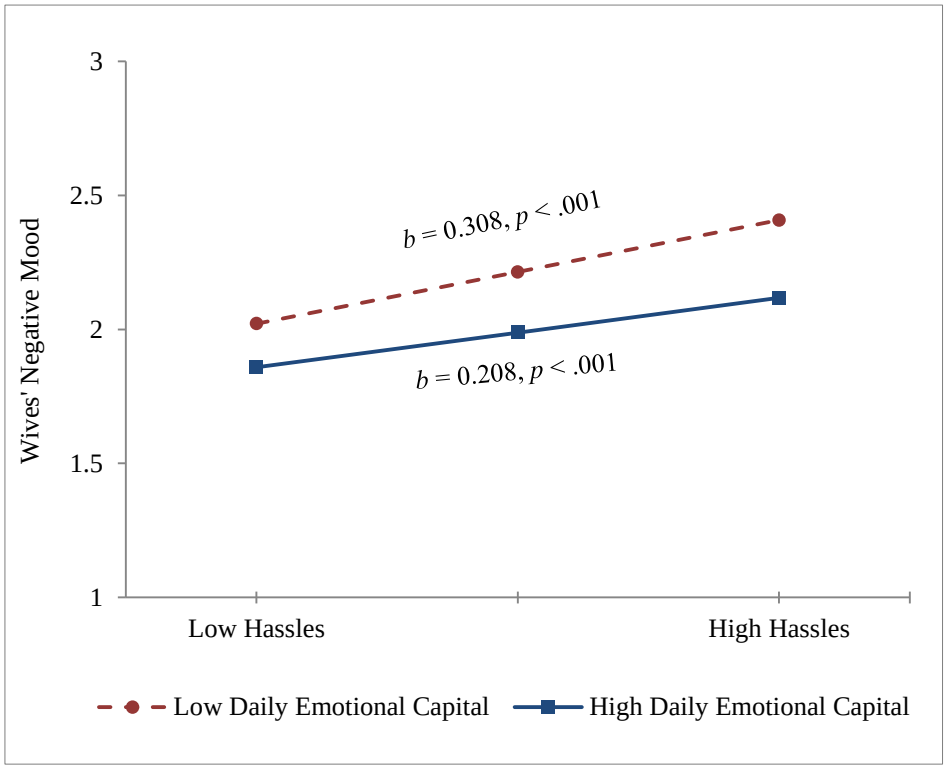

Figure 3. The significant buffering effect of daily emotional capital on the association between daily hassles and negative mood for wives. Shown here is also the significant negative main effect of daily emotional capital on negative mood. Possible scores for negative mood ranged from 0-6 (M = 1.85; SD = 1.00).

capital together compared to days when they accumulated less emotional capital. Daily emotional capital significantly moderated the associations between daily stress and daily negative mood for both husbands and wives. Additionally, daily emotional capital significantly moderated the association between daily hassles and daily negative mood and between daily perceptions of stress and daily positive mood for wives.[7] Although

[7]These patterns of results remained when the age, general relationship satisfaction, and neuroticism covariates were removed from the analyses.

results often emerged as significant for wives only, direct tests of potential gender differences were not significant; thus, it is not clear that wives benefit from their daily emotional capital more so than husbands.

Chronic Emotional Capital

My first hypothesis that *chronic* emotional capital would moderate the associations between daily perceptions of stress and positive mood as well as between daily hassles and positive mood was not supported in the current study. Spouses who reported generally sharing more positive everyday experiences with their partner on average across the diary days did tend to report greater daily positive mood on a day-to-day basis; however, the interaction between chronic emotional capital and daily perceptions of stress predicting same-day positive mood and the interaction between chronic emotional capital and daily hassles predicting same-day positive mood were nonsignificant for wives and husbands (see Tables 7 and 8). Therefore, chronic emotional capital did not buffer spouses' positive mood from the harmful consequences of their daily stress.

My second prediction that chronic emotional capital would moderate the associations between daily perceptions of stress and negative mood and between daily hassles and negative mood was partially supported. First, the main effect of chronic emotional capital on daily negative mood was nonsignificant for both wives and husbands (see Tables 9 and 10). In other words, unlike the associations between *daily* emotional capital and negative mood or the associations between chronic emotional

capital and *positive* mood, chronic emotional capital did not directly predict lower negative mood on a day-to-day basis. In line with my predictions, chronic emotional capital did moderate the positive association between daily perceptions of stress and same-day negative mood for husbands (Table 9; Figure 4). Specifically, simple slope analyses (Table 8) indicated that the effect of daily perceptions of stress on negative mood was weaker, but not eliminated, for husbands who accumulated more compared to less emotional capital. Chronic emotional capital did not moderate the associations between daily perceptions of stress and negative mood for wives (Table 9), but a direct

Figure 4

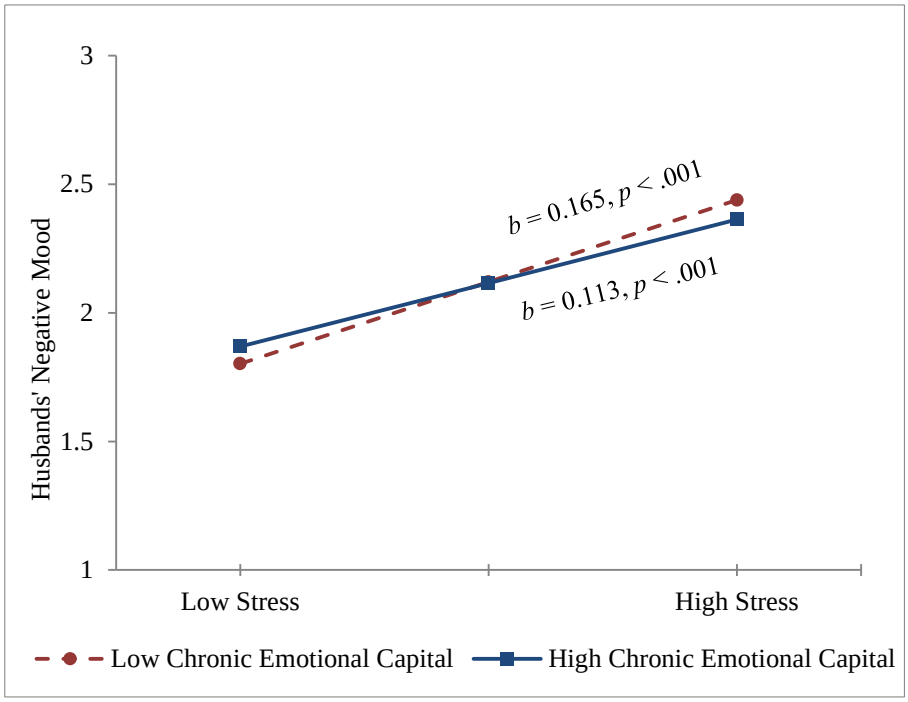

Figure 4. The significant buffering effect of chronic emotional capital on the association between daily perceptions of stress and negative mood for husbands. Shown here is also the nonsignificant main effect of chronic emotional capital on negative mood. Possible scores for negative mood ranged from 0-6 (M = 1.83; SD = 0.95).

comparison of the effects for wives and husbands did not suggest a gender difference ($F(3995) = 3.20$, $p = .07$). Similarly, and again, partially supporting my predictions, chronic emotional capital moderated the positive association between daily hassles and same-day negative mood for husbands (Table 10; Figure 5). Specifically, simple slope analyses (Table 8) again indicated that the effect of daily hassles on negative mood was weaker, but not eliminated, for husbands who accumulated more compared to less emotional capital. Chronic emotional capital again did not moderate the associations

Figure 5

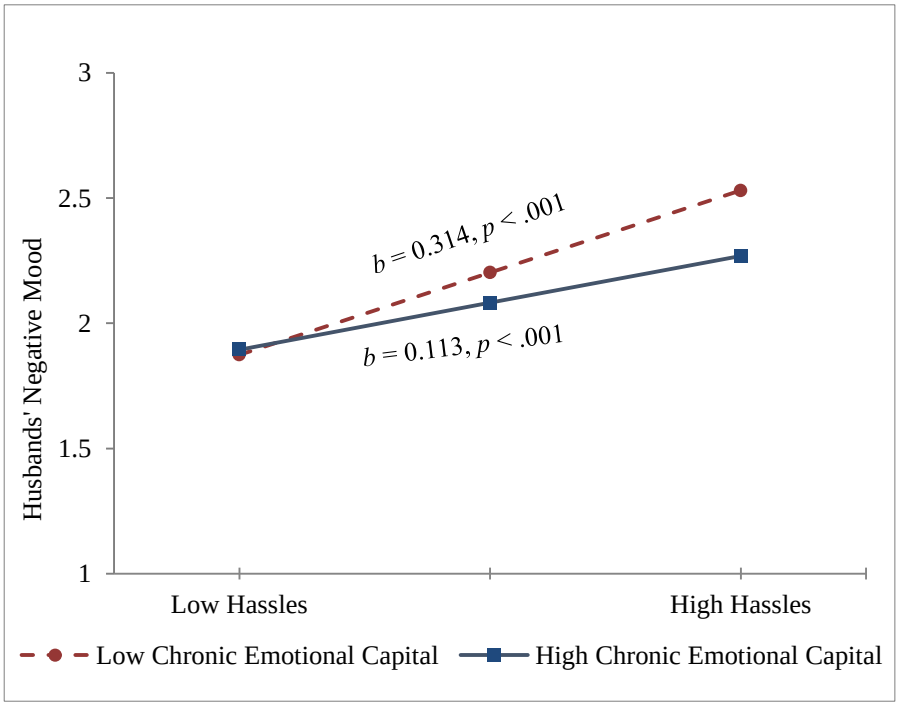

Figure 5. The significant buffering effect of chronic emotional capital on the association between daily hassles and negative mood for husbands. Shown here is also the nonsignificant main effect of chronic emotional capital on negative mood. Possible scores for negative mood ranged from 0-6 ($M = 1.83$; $SD = 0.95$).

between daily hassles and negative mood for wives, and this gender difference was significant ($F(3792) = 5.25$, $p = .02$).

Taken together, these results suggest that, like daily emotional capital, the shared positive moments spouses typically accumulate together on average across time can also be beneficial for their daily mood, particularly for husbands. Chronic accumulations of emotional capital predicted greater overall positive mood on a day-to-day basis for both wives and husbands. Although it did not directly predict lower negative mood, chronic emotional capital did significantly buffer husbands from the adverse effects stress can have on negative mood. In other words, the association between stress and daily negative mood was weaker for husbands who accumulated more emotional capital on average across the diary task compared to husbands who accumulated less emotional capital.[8]

[8]These patterns of results remained when the age, general relationship satisfaction, and neuroticism covariates were removed from the analyses.

Table 7. *The Moderating Effects of Daily and Chronic Emotional Capital on the Association between Daily Perceptions of Stress and Daily Positive Mood*

	Wives					Husbands				
	b	*SE*	*p*	95% CI		*b*	*SE*	*p*	95% CI	
				LL	UL				LL	UL
Intercept	4.967	0.108	<.001	4.755	5.180	4.687	0.109	<.001	4.472	4.903
Previous-Day Positive Mood	-0.055	0.019	.003	-0.092	-0.019	-0.071	0.019	<.001	-0.109	-0.034
Day	-0.015	0.004	<.001	-0.022	-0.008	-0.019	0.004	<.001	-0.026	-0.012
Weekday	-0.059	0.038	.124	-0.133	0.016	-0.025	0.038	.504	-0.099	0.049
Daily Stress	-0.120	0.008	<.001	-0.136	-0.105	-0.120	0.008	<.001	-0.135	-0.104
Average Stress	-0.194	0.043	<.001	-0.278	-0.110	-0.060	0.044	.172	-0.147	0.026
Daily Emotional Capital	0.116	0.011	<.001	0.094	0.138	0.149	0.012	<.001	0.126	0.172
Chronic Emotional Capital	0.182	0.060	.003	0.062	0.301	0.237	0.058	<.001	0.122	0.352
Daily Stress x Daily Emotional Capital	0.012	0.005	.015	0.002	0.022	0.003	0.005	.585	-0.008	0.013
Daily Stress x Chronic Emotional Capital	0.007	0.007	.318	-0.007	0.021	-0.004	0.006	.473	-0.016	0.008
Age Category	0.000	0.148	.999	-0.292	0.292	0.202	0.152	.186	-0.099	0.503
Neuroticism	-0.062	0.030	.038	-0.120	-0.004	-0.026	0.037	.478	-0.099	0.046
General Marital Satisfaction	0.126	0.100	.212	-0.073	0.324	0.354	0.093	<.001	0.170	0.537

Note. *DF* were calculated using Satterthwaite and ranged from 136 – 2360.

Table 8. *Results from Simple Slope Analyses Probing Significant Interactions of Interest in Study 1a (Tables 7, 9 – 11)*

Significant interactive effects	*b*	*SE*	*p*	95% CI LL	95% CI UL
Daily Emotional Capital x Daily Perceptions of Stress Predicting Positive Mood for Wives (Table 7)					
Days with less Emotional Capital	-0.133	0.010	<.001	-0.154	-0.113
Days with more Emotional Capital	-0.099	0.011	< .001	-0.121	-0.078
Daily Emotional Capital x Daily Perceptions of Stress Predicting Negative Mood for Wives (Table 9)					
Days with less Emotional Capital	0.174	0.008	<.001	0.159	0.189
Days with more Emotional Capital	0.137	0.008	<.001	0.121	0.154
Daily Emotional Capital x Daily Perceptions of Stress Predicting Negative Mood for Husbands (Table 9)					
Days with less Emotional Capital	0.146	0.008	<.001	0.131	0.161
Days with more Emotional Capital	0.125	0.008	<.001	0.110	0.140
Daily Emotional Capital x Daily Hassles Predicting Negative Mood for Wives (Table 11)					
Days with less Emotional Capital	0.308	0.029	<.001	0.252	0.364
Days with more Emotional Capital	0.208	0.030	<.001	0.149	0.267
Chronic Emotional Capital x Daily Perceptions of Stress Predicting Negative Mood for Husbands (Table 9)					
Husbands with less Emotional Capital	0.165	0.010	<.001	0.146	0.185
Husbands with more Emotional Capital	0.113	0.010	<.001	0.093	0.133
Chronic Emotional Capital x Daily Hassles Predicting Negative Mood for Husbands (Table 11)					
Husbands with less Emotional Capital	0.314	0.036	<.001	0.244	0.384
Husbands with more Emotional Capital	0.133	0.036	<.001	0.063	0.203

Note. *DF* were calculated using Satterthwaite and ranged from 134-2387.

Table 9. *The Moderating Effects of Daily and Chronic Emotional Capital on the Association between Daily Hassles and Daily Positive Mood*

	Wives					Husbands				
	b	*SE*	*p*	95% CI		*b*	*SE*	*p*	95% CI	
				LL	UL				LL	UL
Intercept	4.992	0.114	<.001	4.767	5.216	4.732	0.112	<.001	4.511	4.952
Previous-Day Positive Mood	-0.120	0.019	<.001	-0.158	-0.083	-0.137	0.020	<.001	-0.176	-0.098
Day	-0.015	0.004	<.001	-0.023	-0.007	-0.020	0.004	<.001	-0.028	-0.012
Weekday	-0.097	0.039	.014	-0.174	-0.020	-0.069	0.039	.079	-0.146	0.008
Daily Hassles	-0.196	0.027	<.001	-0.249	-0.143	-0.194	0.028	<.001	-0.249	-0.138
Average Hassles	-0.506	0.158	.002	-0.818	-0.194	-0.197	0.151	.193	-0.495	0.101
Daily Emotional Capital	0.133	0.012	<.001	0.111	0.156	0.163	0.012	<.001	0.139	0.186
Chronic Emotional Capital	0.229	0.062	<.001	0.107	0.351	0.255	0.058	<.001	0.141	0.369
Daily Hassles x Daily Emotional Capital	-0.004	0.018	.847	-0.039	0.032	0.015	0.019	.431	-0.023	0.053
Daily Hassles x Chronic Emotional Capital	0.027	0.022	.223	-0.016	0.070	-0.002	0.021	.923	-0.043	0.039
Age Category	0.007	0.159	.966	-0.307	0.321	0.206	0.152	.178	-0.094	0.506
Neuroticism	-0.075	0.030	.015	-0.135	-0.015	-0.031	0.036	.394	-0.103	0.041
General Marital Satisfaction	0.171	0.102	.096	-0.031	0.374	0.360	0.092	<.001	0.178	0.542

Note. *DF* were calculated using Satterthwaite and ranged from 137-2376.

Table 10. *The Moderating Effects of Daily and Chronic Emotional Capital on the Association between Daily Perceptions of Stress and Daily Negative Mood*

	Wives					Husbands				
	b	*SE*	*p*	95% CI		*b*	*SE*	*p*	95% CI	
				LL	UL				LL	UL
Intercept	2.125	0.066	<.001	1.994	2.256	2.118	0.065	<.001	1.990	2.246
Previous-Day Negative Mood	-0.049	0.017	.004	-0.083	-0.016	-0.030	0.018	.102	-0.065	0.006
Day	-0.012	0.003	<.001	-0.017	-0.007	-0.012	0.002	<.001	-0.017	-0.007
Weekday	-0.096	0.029	.001	-0.152	-0.040	-0.042	0.027	.120	-0.095	0.011
Daily Stress	0.160	0.006	<.001	0.148	0.171	0.139	0.006	<.001	0.128	0.150
Average Stress	0.228	0.025	<.001	0.178	0.278	0.167	0.025	<.001	0.117	0.217
Daily Emotional Capital	-0.053	0.008	<.001	-0.069	-0.036	-0.041	0.008	<.001	-0.057	-0.024
Chronic Emotional Capital	0.045	0.036	.211	-0.026	0.116	-0.002	0.034	.957	-0.068	0.065
Daily Stress x Daily Emotional Capital	-0.013	0.004	.001	-0.020	-0.005	-0.008	0.004	.031	-0.016	-0.001
Daily Stress x Chronic Emotional Capital	-0.002	0.005	.743	-0.012	0.009	-0.014	0.004	.002	-0.022	-0.005
Age Category	-0.190	0.087	.031	-0.363	-0.017	-0.290	0.087	.001	-0.463	-0.117
Neuroticism	0.059	0.018	.001	0.024	0.093	0.044	0.021	.039	0.002	0.086
General Marital Satisfaction	-0.182	0.060	.003	-0.301	-0.064	-0.281	0.054	<.001	-0.387	-0.174

Note. *DF* were calculated using Satterthwaite and ranged from 138-2348.

Table 11. *The Moderating Effects of Daily and Chronic Emotional Capital on the Association between Daily Hassles and Daily Negative Mood*

	Wives					Husbands				
	b	*SE*	*p*	95% CI		*b*	*SE*	*p*	95% CI	
				LL	UL				LL	UL
Intercept	2.101	0.076	<.001	1.953	2.250	2.143	0.072	<.001	2.000	2.285
Previous-Day Negative Mood	-0.151	0.019	<.001	-0.187	-0.114	-0.139	0.019	<.001	-0.177	-0.100
Day	-0.014	0.003	<.001	-0.021	-0.008	-0.014	0.003	<.001	-0.020	-0.008
Weekday	-0.053	0.032	.100	-0.115	0.010	0.004	0.030	.892	-0.054	0.062
Daily Hassles	0.269	0.021	<.001	0.227	0.311	0.223	0.021	<.001	0.183	0.264
Average Hassles	0.703	0.097	<.001	0.511	0.895	0.387	0.092	<.001	0.204	0.570
Daily Emotional Capital	-0.078	0.009	<.001	-0.096	-0.060	-0.054	0.009	<.001	-0.072	-0.037
Chronic Emotional Capital	-0.012	0.038	.758	-0.087	0.064	-0.047	0.035	.183	-0.117	0.023
Daily Hassles x Daily Emotional Capital	-0.036	0.014	.011	-0.064	-0.008	-0.005	0.014	.745	-0.033	0.023
Daily Hassles x Chronic Emotional Capital	0.005	0.018	.787	-0.030	0.039	-0.048	0.015	.002	-0.078	-0.018
Age Category	-0.148	0.099	.137	-0.344	0.048	-0.368	0.094	<.001	-0.555	-0.182
Neuroticism	0.072	0.019	<.001	0.036	0.109	0.060	0.022	.008	0.016	0.104
General Marital Satisfaction	-0.205	0.063	.002	-0.330	-0.079	-0.296	0.056	<.001	-0.407	-0.184

Note. *DF* were calculated using Satterthwaite and ranged from 137-2384.

Auxiliary Analyses: The Moderating Effect of Age

Given the sample of couples who participated in the current study (i.e., married couples ages 30-45 years or older than 60 years) and research documenting older adults' attentional bias toward positive experiences and tendencies to be more reactive to negative experiences compared to younger adults (e.g. Carstensen, Fung, & Charles, 2003; Charles, 2010; Piazza et al., 2013), I next explored the ways in which participants' age may moderate the buffering effect of emotional capital. First, I explored differences in daily experiences reported by younger and older spouses. Specifically, using a simple random intercept multilevel model (i.e., using the MIXED procedure in SAS 9.4), I modeled negative and positive mood as well as daily emotional capital, perceptions of stress, and hassles as a function of age. Across these five models, older spouses reported greater positive mood, lower negative mood, fewer hassles, lower perceived stress, and more emotional capital (husbands only) compared to younger spouses (see Table 12).

Next, in order to explore the possibility that emotional capital may serve as a more effective buffer for younger or older couples, I repeated the proposed analyses, including the interaction between age and all main effects and interactions of interest (see Tables 13 – 19 for full model results). Because age was dummy-coded such that younger couples were coded as zero and older couples were coded as one, all main effects and two-way interactions, which do not include interactions with age, reflect coefficients for younger couples. Any significant interactions which include the effect of age suggest that the coefficients differ for younger and older couples. In order to explore potential differences in the buffering effect of emotional capital, when the three way interaction

between emotional capital (daily or chronic), daily stress (perceptions of stress or hassles), and age was significant, I conducted simple slope analyses by recoding the age variable such that older couples were coded as zero and younger couples were coded as one. Given that these analyses were exploratory, I only discuss the results from these models if the three-way interaction was significant at $p < .01$ level, based on Bonferroni corrections (Howell, 2013).

When positive mood was modeled as a function of daily perceptions of stress, a significant negative interaction between age, daily perceptions of stress, and daily emotional capital emerged for husbands (Table 13). The two-way interaction between daily perceptions of stress and daily emotional capital was not significant at the Bonferroni corrected level for younger husbands (Table 13; Figure 6, Panel A), but was significant and positive for older husbands (Table 14; Figure 6, Panel B). These results suggest that the moderating role of daily emotional capital on the association between daily perceptions of stress and daily positive mood was more effective for older compared to younger husbands. A significant negative interaction between age, daily perceptions of stress, and chronic emotional capital also emerged for husbands. The two-way interaction between daily perceptions of stress and chronic emotional capital was significant and negative for younger husbands (Table 13; Figure 7, Panel A) but was not significant for older husbands (Table 14; Figure 7, Panel B). Unexpectedly, this suggests that husbands with more chronic emotional capital were not less affected by daily

perceptions of stress compared to husbands with less emotional capital; rather, younger husbands with more chronic emotional capital appeared to be particularly reactive to

Figure 6

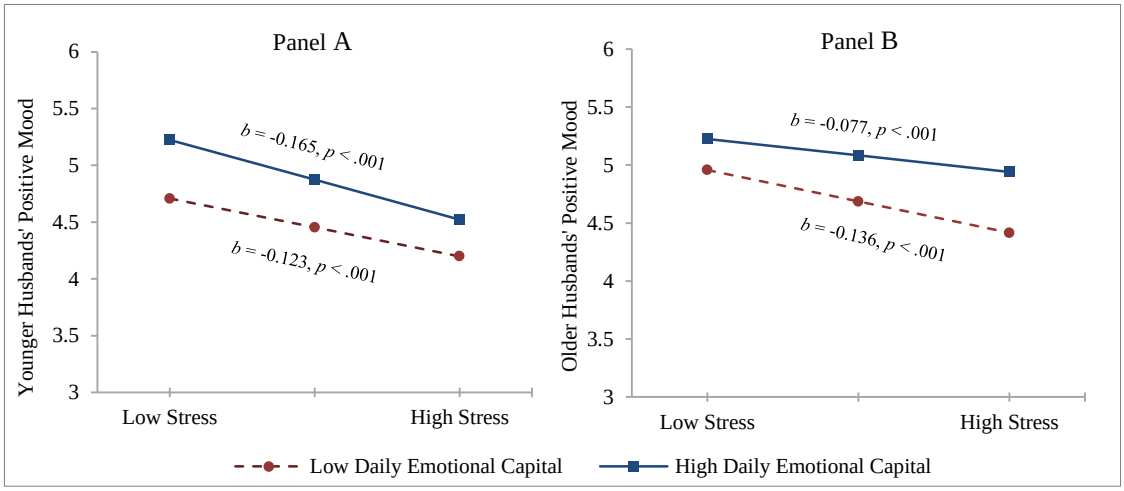

Figure 6. The significant three-way interaction between daily emotional capital, daily perceptions of stress, and age predicting negative mood. The interaction between daily emotional capital and daily perceptions of stress was nonsignificant for younger husbands (Panel A) but was significant for older husbands (Panel B). Possible scores for positive mood ranged from 0-6 (M = 4.34; SD = 1.22).

Figure 7

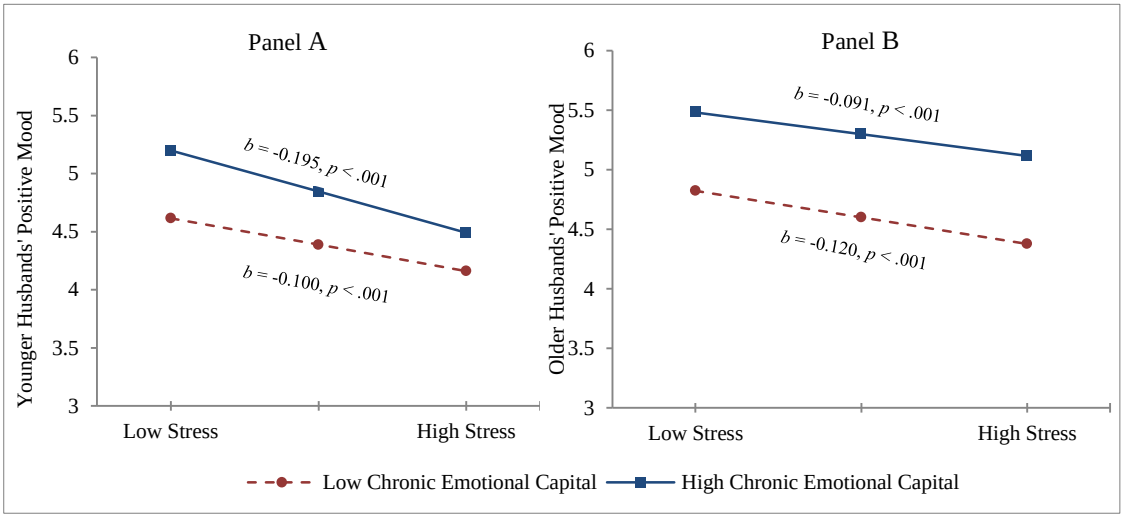

Figure 7. The significant three-way interaction between chronic emotional capital, daily perceptions of stress, and age predicting positive mood. The interaction between chronic emotional capital and daily perceptions of stress was significant for younger husbands (Panel A) but was nonsignificant for older husbands (Panel B). Shown here is also the significant main effect of chronic emotional capital for both younger and older husbands. Possible scores for positive mood ranged from 0-6 (M = 4.34; SD = 1.22).

daily perceptions of stress, while chronic emotional capital was unrelated to reactivity for older husbands. When positive mood was modeled as function of daily hassles, age did not moderate the buffering effect of emotional capital; both three-way interactions between age, daily hassles, and emotional capital (daily and chronic) were nonsignificant for wives and husbands (Table 15).

When *negative* mood was modeled as a function of daily perceptions of stress, a significant negative interaction between age, daily perceptions of stress, and chronic emotional capital emerged again for husbands (Table 16). The two-way interaction between daily perceptions of stress and chronic emotional capital was nonsignificant for younger husbands (Table 16; Figure 8, Panel A), but was significant and negative for older husbands (Table 17; Figure 8, Panel B). This suggests that the moderating role of chronic emotional capital on the association between daily perceptions of stress and daily negative mood was more effective for older compared to younger husbands. When negative mood was modeled as a function of daily hassles, a significant negative interaction between age, daily hassles, and daily emotional capital emerged again for husbands (Table 18); however, the two-way interaction between daily hassles and chronic emotional capital was nonsignificant for both younger and older husbands (Tables 18 and 19, respectively).

Taken together, these results suggest that the buffering effect of emotional capital may be particularly beneficial for older spouses. Although age did not moderate the buffering effect of daily or chronic emotional capital for wives, it did moderate a number

Figure 8

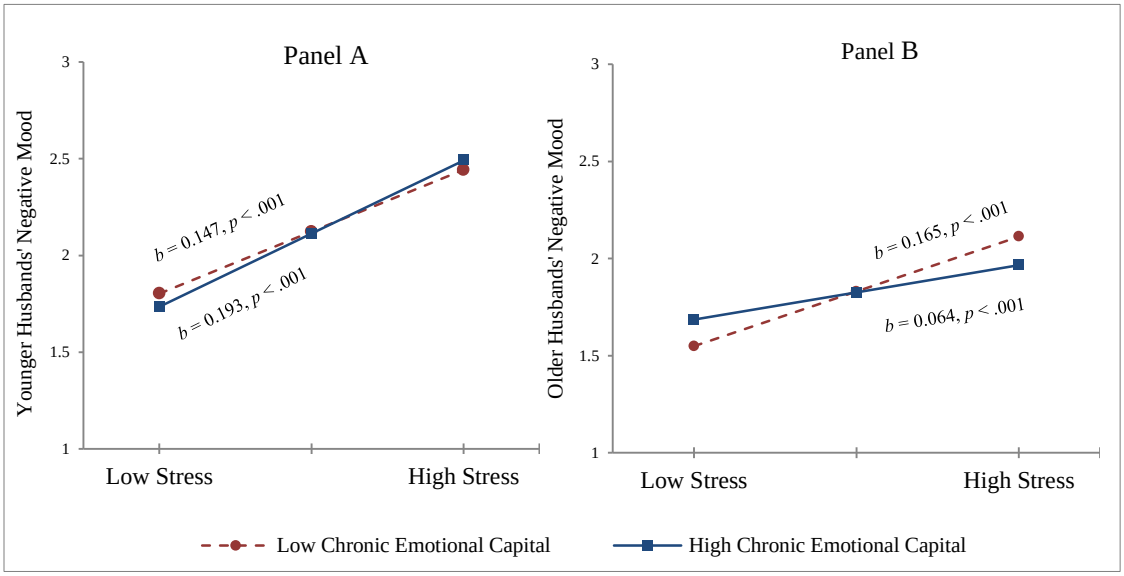

Figure 8. The significant three-way interaction between chronic emotional capital, daily perceptions of stress, and age predicting negative mood. The interaction between chronic emotional capital and daily perceptions of stress was nonsignificant for younger husbands (Panel A) but was significant for older husbands (Panel B). Possible scores for negative mood ranged from 0-6 (M = 1.49; SD = 0.71).

of associations for husbands, and the buffering effect of emotional capital tended to be stronger for older husbands. Direct comparisons of the effects for wives and husbands, however, revealed that no gender differences were significant based on Bonferroni corrections (F(2772-4116) = 0.46-6.08, p = .01-.50). Given the exploratory nature of these results and the finding that age only emerged as a significant moderator for husbands, these results should be interpreted with caution and future replication is necessary to more confidently support these findings; however, these initial findings

suggest that emotional capital may be even more effective for older compared to younger couples.[9]

SUMMARY

The results from Study 1a suggest that the daily positive experiences that couples share together can have important benefits for personal well-being. Specifically, on days in which spouses reported more emotional capital, they experienced better overall mood than on days with less emotional capital. Additionally, emotional capital accumulated on a given day seemed to protect wives from the potential consequences daily perceptions of stress and daily hassles can have on their mood that day. Husbands also seemed to benefit from their daily accumulations of emotional capital, but they more consistently benefited from their general, or typical, accumulation of shared positive experiences across time (i.e., chronic emotional capital), and the buffering effect of emotional capital seemed to be particularly effective for older compared to younger husbands. In sum, although there were some differences in the type of emotional capital that was most beneficial for wives (i.e., daily emotional capital) and husbands (i.e., chronic emotional capital) in the current study, sharing positive experiences together did seem to buffer both wives and husbands from the harmful consequences daily perceptions of stress and daily hassles can have on their daily mood. Notably, support for the buffering effect of emotional capital was

[9] These patterns of results remained when the general relationship satisfaction and neuroticism covariates were removed from the analyses.

consistent when controlling for spouses' trait-level neuroticism and general marital satisfaction in all analyses.

Table 12. *Age Comparisons in Daily Experiences: Mood, Stress, Hassles and Emotional Capital Modeled as a Function of Spouses' Age Category*

Daily Experience	Wives					Husbands.				
	b	*SE*	*p*	95% CI LL	95% CI UL	*b*	*SE*	*p*	95% CI LL	95% CI UL
Positive Mood										
Intercept	4.597	0.109	<.001	4.381	4.813	4.324	0.108	<.001	4.110	4.538
Age	0.334	0.157	.035	0.024	0.644	0.586	0.154	<.001	0.282	0.891
Negative Mood										
Intercept	2.135	0.076	<.001	1.984	2.287	2.172	0.071	<.001	2.031	2.313
Age	-0.568	0.110	<.001	-0.785	-0.351	-0.684	0.102	<.001	0.885	-0.483
Daily Stress										
Intercept	3.286	0.114	<.001	3.061	3.512	3.437	0.111	<.001	3.217	3.656
Age	-0.751	0.164	<.001	-1.075	-0.427	-0.938	0.159	<.001	1.253	-0.624
Daily Hassles										
Intercept	1.527	0.071	<.001	1.386	1.667	1.576	0.072	<.001	1.434	1.719
Age	-0.626	0.102	<.001	-0.828	-0.424	-0.529	0.103	<.001	0.733	-0.325
Daily Emotional Capital										
Intercept	3.521	0.178	<.001	3.169	3.873	3.238	0.188	<.001	2.866	3.610
Age	-0.056	0.255	.827	-0.560	0.449	0.668	0.269	.014	0.137	1.198

Note. Age was dummy coded such that younger spouses were coded as zero and older couples were coded as one. Significant positive coefficients indicated the effect is strong for older spouses; significant negative coefficients indicated the effect is stronger for younger spouses. *DF* were calculated using Satterthwaite and ranged from 145-156.

Table 13. *The Moderating Effects of Age on the Buffering Effect of Daily and Chronic Emotional Capital on the Association between Daily Perceptions of Stress and Daily Positive Mood – Younger Couples as the Reference Group*

	Wives					Husbands				
	b	*SE*	*p*	95% CI LL	95% CI UL	*b*	*SE*	*p*	95% CI LL	95% CI UL
Intercept	4.962	0.108	<.001	4.749	5.175	4.663	0.110	<.001	4.446	4.880
Previous-Day Positive Mood	-0.048	0.019	.010	-0.085	-0.012	-0.063	0.019	.001	-0.100	-0.025
Day	-0.015	0.003	<.001	-0.022	-0.008	-0.019	0.003	<.001	-0.026	-0.012
Weekday	-0.054	0.038	.155	-0.128	0.020	-0.017	0.038	.646	-0.091	0.057
Daily Stress	-0.149	0.011	<.001	-0.171	-0.128	-0.145	0.011	<.001	-0.167	-0.123
Average Stress	-0.193	0.043	<.001	-0.278	-0.109	-0.061	0.044	.167	-0.148	0.026
Daily Emotional Capital	0.112	0.015	<.001	0.083	0.141	0.138	0.016	<.001	0.107	0.168
Chronic Emotional Capital	0.183	0.081	.025	0.023	0.343	0.199	0.088	.025	0.025	0.372
Daily Stress x Daily Emotional Capital	0.010	0.007	.146	-0.004	0.024	-0.015	0.007	.032	-0.029	-0.001
Daily Stress x Chronic Emotional Capital	-0.002	0.009	.796	-0.020	0.016	-0.026	0.009	.005	-0.045	-0.008
Age Category	0.002	0.149	.988	-0.292	0.297	0.222	0.153	.149	-0.080	0.523
Neuroticism	-0.063	0.030	.038	-0.122	-0.003	-0.024	0.037	.512	-0.098	0.049
General Marital Satisfaction	0.127	0.101	.209	-0.072	0.327	0.360	0.094	<.001	0.173	0.546
Age Category x Daily Stress	0.057	0.016	<.001	0.026	0.087	0.040	0.016	.013	0.008	0.071
Age Category x Daily Emotional Capital	0.007	0.022	.765	-0.037	0.050	0.015	0.023	.507	-0.030	0.060
Age Category x Chronic Emotional Capital	-0.006	0.113	.959	-0.230	0.218	0.060	0.111	.590	-0.160	0.280
Age Category x Daily Stress x Daily Emotional Capital	0.004	0.010	.658	-0.015	0.024	0.040	0.011	<.001	0.019	0.062
Age Category x Daily Stress x Chronic Emotional Capital	0.021	0.014	.137	-0.007	0.049	0.034	0.013	.007	0.009	0.059

Note. *DF* were calculated using Satterthwaite and ranged from 135-2358. Only effects in which $p < .01$ are deemed significant based on Bonferroni Corrections (Howell, 2013).

Table 14. *The Moderating Effects of Age on the Buffering Effect of Daily and Chronic Emotional Capital on the Association between Daily Perceptions of Stress and Daily Positive Mood with Age Recoded – Older Couples as the Reference Group*

	Wives					Husbands				
	b	*SE*	*p*	95% CI		*b*	*SE*	*p*	95% CI	
				LL	UL				LL	UL
Intercept	4.964	0.111	<.001	4.746	5.183	4.885	0.113	<.001	4.662	5.107
Previous-Day Positive Mood	-0.048	0.019	.010	-0.085	-0.012	-0.063	0.019	.001	-0.100	-0.025
Day	-0.015	0.003	<.001	-0.022	-0.008	-0.019	0.003	<.001	-0.026	-0.012
Weekday	-0.054	0.038	.155	-0.128	0.020	-0.017	0.038	.646	-0.091	0.057
Daily Stress	-0.092	0.011	<.001	-0.114	-0.071	-0.105	0.012	<.001	-0.128	-0.083
Average Stress	-0.193	0.043	<.001	-0.278	-0.109	-0.061	0.044	.167	-0.148	0.026
Daily Emotional Capital	0.119	0.017	<.001	0.085	0.152	0.153	0.017	<.001	0.119	0.187
Chronic Emotional Capital	0.177	0.085	.039	0.009	0.345	0.259	0.074	.001	0.112	0.405
Daily Stress x Daily Emotional Capital	0.014	0.007	.041	0.001	0.028	0.025	0.008	.002	0.009	0.041
Daily Stress x Chronic Emotional Capital	0.019	0.011	.084	-0.003	0.040	0.008	0.008	.356	-0.009	0.024
Age Category	-0.002	0.149	.988	-0.297	0.292	-0.222	0.153	.149	-0.523	0.080
Neuroticism	-0.063	0.030	.038	-0.122	-0.003	-0.024	0.037	.512	-0.098	0.049
General Marital Satisfaction	0.127	0.101	.209	-0.072	0.327	0.360	0.094	<.001	0.173	0.546
Age Category x Daily Stress	-0.057	0.016	<.001	-0.087	-0.026	-0.040	0.016	.013	-0.071	-0.008
Age Category x Daily Emotional Capital	-0.007	0.022	.765	-0.050	0.037	-0.015	0.023	.507	-0.060	0.030
Age Category x Chronic Emotional Capital	0.006	0.113	.959	-0.218	0.230	-0.060	0.111	.590	-0.280	0.160
Age Category x Daily Stress x Daily Emotional Capital	-0.004	0.010	.658	-0.024	0.015	-0.040	0.011	<.001	-0.062	-0.019
Age Category x Daily Stress x Chronic Emotional Capital	-0.021	0.014	.137	-0.049	0.007	-0.034	0.013	.007	-0.059	-0.009

Note. *DF* were calculated using Satterthwaite and ranged from 135-2358. Only effects in which $p < .01$ are deemed significant based on Bonferroni Corrections (Howell, 2013).

Table 15. *The Moderating Effects of Age on the Buffering Effect of Daily and Chronic Emotional Capital on the Association between Daily Hassles and Daily Positive Mood – Younger Couples as the Reference Group*

	Wives					Husbands				
	b	*SE*	*p*	95% CI LL	95% CI UL	*b*	*SE*	*p*	95% CI LL	95% CI UL
Intercept	4.997	0.114	<.001	4.771	5.223	4.728	0.113	<.001	4.506	4.951
Previous-Day Positive Mood	-0.121	0.019	<.001	-0.159	-0.083	-0.139	0.020	<.001	-0.178	-0.100
Day	-0.016	0.004	<.001	-0.023	-0.008	-0.020	0.004	<.001	-0.028	-0.012
Weekday	-0.099	0.039	.012	-0.177	-0.022	-0.069	0.039	.078	-0.147	0.008
Daily Hassles	-0.218	0.033	<.001	-0.283	-0.154	-0.224	0.037	<.001	-0.297	-0.152
Average Hassles	-0.504	0.158	.002	-0.817	-0.191	-0.195	0.151	.198	-0.494	0.104
Daily Emotional Capital	0.134	0.015	<.001	0.105	0.164	0.168	0.016	<.001	0.136	0.199
Chronic Emotional Capital	0.230	0.083	.006	0.066	0.395	0.228	0.087	.010	0.056	0.400
Daily Hassles x Daily Emotional Capital	0.002	0.022	.920	-0.041	0.045	0.028	0.024	.247	-0.020	0.076
Daily Hassles x Chronic Emotional Capital	0.015	0.026	.546	-0.035	0.066	-0.023	0.027	.380	-0.075	0.029
Age Category	0.005	0.160	.973	-0.311	0.322	0.207	0.152	.177	-0.094	0.508
Neuroticism	-0.075	0.031	.016	-0.135	-0.014	-0.029	0.037	.441	-0.101	0.044
General Marital Satisfaction	0.173	0.103	.096	-0.031	0.376	0.367	0.094	<.001	0.182	0.552
Age Category x Daily Hassles	0.080	0.058	.168	-0.034	0.193	0.069	0.058	.235	-0.045	0.183
Age Category x Daily Emotional Capital	-0.002	0.023	.925	-0.047	0.042	-0.012	0.024	.624	-0.058	0.035
Age Category x Chronic Emotional Capital	-0.004	0.117	.975	-0.235	0.228	0.048	0.111	.667	-0.172	0.268
Age Category x Daily Hassles x Daily Emotional Capital	-0.015	0.039	.697	-0.093	0.062	-0.036	0.041	.375	-0.116	0.044
Age Category x Daily Hassles x Chronic Emotional Capital	0.056	0.052	.279	-0.046	0.158	0.044	0.044	.318	-0.042	0.130

Note. *DF* were calculated using Satterthwaite and ranged from 136-2372. Only effects in which $p < .01$ are deemed significant based on Bonferroni Corrections (Howell, 2013). Because the three-way interaction between age, daily hassles, and emotional capital (daily and chronic) were nonsignificant for both wives and husbands, I did not conduct this analysis a second time using the recoded age variable in which older adults serve as the reference group.

Table 16. *The Moderating Effects of Age on the Buffering Effect of Daily and Chronic Emotional Capital on the Association between Daily Perceptions of Stress and Daily Negative Mood – Younger Couples as the Reference Group*

	Wives					Husbands				
	b	*SE*	*p*	95% CI		*b*	*SE*	*p*	95% CI	
				LL	UL				LL	UL
Intercept	2.137	0.067	<.001	2.006	2.268	2.117	0.065	<.001	1.988	2.246
Previous-Day Negative Mood	-0.055	0.017	.001	-0.087	-0.022	-0.032	0.018	.072	-0.068	0.003
Day	-0.012	0.003	<.001	-0.017	-0.007	-0.011	0.002	<.001	-0.016	-0.007
Weekday	-0.101	0.028	<.001	-0.156	-0.045	-0.047	0.027	.078	-0.100	0.005
Daily Stress	0.208	0.008	<.001	0.192	0.224	0.170	0.008	<.001	0.155	0.186
Average Stress	0.227	0.026	<.001	0.176	0.277	0.167	0.025	<.001	0.117	0.218
Daily Emotional Capital	-0.027	0.011	.015	-0.049	-0.005	-0.034	0.011	.002	-0.056	-0.013
Chronic Emotional Capital	0.040	0.048	.413	-0.056	0.135	-0.004	0.051	.935	-0.104	0.096
Daily Stress x Daily Emotional Capital	-0.006	0.005	.268	-0.016	0.004	-0.008	0.005	.100	-0.018	0.002
Daily Stress x Chronic Emotional Capital	0.003	0.007	.665	-0.010	0.016	0.012	0.007	.070	-0.001	0.025
Age Category	-0.200	0.088	.025	-0.374	-0.025	-0.289	0.088	.001	-0.462	-0.115
Neuroticism	0.059	0.018	.001	0.024	0.095	0.044	0.022	.044	0.001	0.087
General Marital Satisfaction	-0.182	0.060	.003	-0.301	-0.063	-0.280	0.055	<.001	-0.387	-0.172
Age Category x Daily Stress	-0.096	0.012	<.001	-0.119	-0.074	-0.056	0.011	<.001	-0.078	-0.034
Age Category x Daily Emotional Capital	-0.053	0.016	.001	-0.085	-0.021	-0.004	0.016	.788	-0.037	0.028
Age Category x Chronic Emotional Capital	0.011	0.067	.869	-0.122	0.145	0.002	0.064	.973	-0.125	0.129
Age Category x Daily Stress x Daily Emotional Capital	-0.013	0.007	.074	-0.028	0.001	0.002	0.008	.764	-0.013	0.017
Age Category x Daily Stress x Chronic Emotional Capital	-0.009	0.011	.379	-0.030	0.011	-0.039	0.009	<.001	-0.056	-0.021

Note. *DF* were calculated using Satterthwaite and ranged from 137-2340. Only effects in which $p < .01$ are deemed significant based on Bonferroni Corrections (Howell, 2013).

Table 17. *The Moderating Effects of Age on the Buffering Effect of Daily and Chronic Emotional Capital on the Association between Daily Perceptions of Stress and Daily Negative Mood with Age Recoded – Older Couples as the Reference Group*

	Wives					Husbands				
	b	*SE*	*p*	95% CI LL	95% CI UL	*b*	*SE*	*p*	95% CI LL	95% CI UL
Intercept	1.937	0.068	<.001	1.803	2.071	1.828	0.067	<.001	1.696	1.960
Previous-Day Negative Mood	-0.055	0.017	.001	-0.087	-0.022	-0.032	0.018	.072	-0.068	0.003
Day	-0.012	0.003	<.001	-0.017	-0.007	-0.011	0.002	<.001	-0.016	-0.007
Weekday	-0.101	0.028	<.001	-0.156	-0.045	-0.047	0.027	.078	-0.100	0.005
Daily Stress	0.112	0.008	<.001	0.096	0.128	0.114	0.008	<.001	0.098	0.130
Average Stress	0.227	0.026	<.001	0.176	0.277	0.167	0.025	<.001	0.117	0.218
Daily Emotional Capital	-0.080	0.013	<.001	-0.105	-0.056	-0.039	0.012	.002	-0.063	-0.015
Chronic Emotional Capital	0.051	0.051	.319	-0.049	0.151	-0.002	0.043	.963	-0.087	0.083
Daily Stress x Daily Emotional Capital	-0.019	0.005	<.001	-0.029	-0.008	-0.006	0.006	.308	-0.017	0.005
Daily Stress x Chronic Emotional Capital	-0.006	0.008	.432	-0.022	0.009	-0.027	0.006	<.001	-0.038	-0.015
Age Category	0.200	0.088	.025	0.025	0.374	0.289	0.088	.001	0.115	0.462
Neuroticism	0.059	0.018	.001	0.024	0.095	0.044	0.022	.044	0.001	0.087
General Marital Satisfaction	-0.182	0.060	.003	-0.301	-0.063	-0.280	0.055	<.001	-0.387	-0.172
Age Category x Daily Stress	0.096	0.012	<.001	0.074	0.119	0.056	0.011	<.001	0.034	0.078
Age Category x Daily Emotional Capital	0.053	0.016	.001	0.021	0.085	0.004	0.016	.788	-0.028	0.037
Age Category x Chronic Emotional Capital	-0.011	0.067	.869	-0.145	0.122	-0.002	0.064	.973	-0.129	0.125
Age Category x Daily Stress x Daily Emotional Capital	0.013	0.007	.074	-0.001	0.028	-0.002	0.008	.764	-0.017	0.013
Age Category x Daily Stress x Chronic Emotional Capital	0.009	0.011	.379	-0.011	0.030	0.039	0.009	<.001	0.021	0.056

Note. DF were calculated using Satterthwaite and ranged from 137-2340. Only effects in which $p < .01$ are deemed significant based on Bonferroni Corrections (Howell, 2013).

Table 18. *The Moderating Effects of Age on the Buffering Effect of Daily and Chronic Emotional Capital on the Association between Daily Hassles and Daily Negative Mood – Younger Couples as the Reference Group*

	Wives					Husbands				
	b	*SE*	*p*	95% CI		*b*	*SE*	*p*	95% CI	
				LL	UL				LL	UL
Intercept	2.101	0.076	<.001	1.952	2.251	2.138	0.073	<.001	1.994	2.282
Previous-Day Negative Mood	-0.151	0.019	<.001	-0.188	-0.115	-0.142	0.019	<.001	-0.181	-0.104
Day	-0.015	0.003	<.001	-0.021	-0.008	-0.014	0.003	<.001	-0.020	-0.008
Weekday	-0.051	0.032	.111	-0.114	0.012	0.004	0.030	.896	-0.054	0.062
Daily Hassles	0.291	0.026	<.001	0.240	0.342	0.264	0.027	<.001	0.211	0.317
Average Hassles	0.703	0.097	<.001	0.511	0.896	0.383	0.093	<.001	0.200	0.566
Daily Emotional Capital	-0.064	0.012	<.001	-0.088	-0.041	-0.062	0.012	<.001	-0.085	-0.039
Chronic Emotional Capital	-0.015	0.051	.768	-0.117	0.086	-0.059	0.053	.271	-0.164	0.047
Daily Hassles x Daily Emotional Capital	-0.044	0.017	.010	-0.078	-0.011	-0.034	0.018	.058	-0.069	0.001
Daily Hassles x Chronic Emotional Capital	-0.003	0.020	.865	-0.043	0.036	-0.013	0.019	.500	-0.051	0.025
Age Category	-0.146	0.100	.146	-0.343	0.052	-0.367	0.095	<.001	-0.554	-0.180
Neuroticism	0.072	0.019	<.001	0.035	0.110	0.060	0.023	.008	0.016	0.105
General Marital Satisfaction	-0.203	0.064	.002	-0.329	-0.077	-0.293	0.057	<.001	-0.407	-0.180
Age Category x Daily Hassles	-0.058	0.046	.201	-0.148	0.031	-0.092	0.043	.032	-0.176	-0.008
Age Category x Daily Emotional Capital	-0.032	0.018	.077	-0.067	0.003	0.018	0.018	.299	-0.016	0.053
Age Category x Chronic Emotional Capital	0.007	0.072	.923	-0.136	0.150	0.018	0.068	.794	-0.117	0.153
Age Category x Daily Hassles x Daily Emotional Capital	0.028	0.031	.360	-0.032	0.089	0.081	0.030	.007	0.022	0.139
Age Category x Daily Hassles x Chronic Emotional Capital	0.036	0.041	.388	-0.045	0.116	-0.076	0.032	.018	-0.140	-0.013

Note. DF were calculated using Satterthwaite and ranged from136-2381. Only effects in which $p < .01$ are deemed significant based on Bonferroni Corrections (Howell, 2013).

Table 19. *The Moderating Effects of Age on the Buffering Effect of Daily and Chronic Emotional Capital on the Association between Daily Hassles and Daily Negative Mood with Age Recoded – Older Couples as the Reference Group*

	Wives					Husbands				
	b	*SE*	*p*	95% CI		*b*	*SE*	*p*	95% CI	
				LL	UL				LL	UL
Intercept	1.956	0.078	<.001	1.802	2.110	1.771	0.074	<.001	1.626	1.917
Previous-Day Negative Mood	-0.151	0.019	<.001	-0.188	-0.115	-0.142	0.019	<.001	-0.181	-0.104
Day	-0.015	0.003	<.001	-0.021	-0.008	-0.014	0.003	<.001	-0.020	-0.008
Weekday	-0.051	0.032	.111	-0.114	0.012	0.004	0.030	.896	-0.054	0.062
Daily Hassles	0.232	0.038	<.001	0.158	0.306	0.173	0.034	<.001	0.107	0.239
Average Hassles	0.703	0.097	<.001	0.511	0.896	0.383	0.093	<.001	0.200	0.566
Daily Emotional Capital	-0.096	0.014	<.001	-0.123	-0.069	-0.044	0.013	.001	-0.070	-0.018
Chronic Emotional Capital	-0.008	0.054	.879	-0.115	0.098	-0.041	0.045	.366	-0.131	0.049
Daily Hassles x Daily Emotional Capital	-0.016	0.026	.536	-0.067	0.035	0.047	0.024	.050	0.000	0.094
Daily Hassles x Chronic Emotional Capital	0.032	0.036	.369	-0.038	0.102	-0.089	0.026	.001	-0.140	-0.039
Age Category	0.146	0.100	.146	-0.052	0.343	0.367	0.095	<.001	0.180	0.554
Neuroticism	0.072	0.019	<.001	0.035	0.110	0.060	0.023	.008	0.016	0.105
General Marital Satisfaction	-0.203	0.064	.002	-0.329	-0.077	-0.293	0.057	<.001	-0.407	-0.180
Age Category x Daily Hassles	0.058	0.046	.201	-0.031	0.148	0.092	0.043	.032	0.008	0.176
Age Category x Daily Emotional Capital	0.032	0.018	.077	-0.003	0.067	-0.018	0.018	.299	-0.053	0.016
Age Category x Chronic Emotional Capital	-0.007	0.072	.923	-0.150	0.136	-0.018	0.068	.794	-0.153	0.117
Age Category x Daily Hassles x Daily Emotional Capital	-0.028	0.031	.360	-0.089	0.032	-0.081	0.030	.007	-0.139	-0.022
Age Category x Daily Hassles x Chronic Emotional Capital	-0.036	0.041	.388	-0.116	0.045	0.076	0.032	.018	0.013	0.140

Note. DF were calculated using Satterthwaite and ranged from 136-2381. Only effects in which $p < .01$ are deemed significant based on Bonferroni Corrections (Howell, 2013).

Chapter 4: Study 1b

The findings from Study 1a suggest that emotional capital can buffer individuals' immediate, daily responses to stress external to the relationship; however, the study did not address potential longer-term benefits of emotional capital. Theories suggest that one reason minor stressors seem to have such detrimental impacts is due to their chronic nature, which may put individuals at risk of developing major psychological and physical problems (Randall & Bodenmann, 2009). Therefore, the goal of Study 1b was to extend the findings from Study 1a by testing whether emotional capital can also buffer the effects chronic stress can have on a more global, longer-term mental health outcome (i.e., depression). Specifically, in the current study, I examined whether emotional capital predicted a reduced association between *chronic* life stress external to the relationship and depression assessed 6 months later. Newlywed spouses provided six waves of data in six-month intervals, which included daily surveys collecting reports of emotional capital (Waves 1, 3, and 5), questionnaires assessing chronic stress (Waves 1, 3, and 5), and questionnaires measuring depression (Waves 1-6), across the first three years of their marriage. Using this data, I tested my predictions that both within-person and between-person chronic emotional capital would moderate the association between chronic stress and subsequent depression. More specifically, I predicted that:

H1b-i: when spouses reported more emotional capital at a given wave of data collection, they would exhibit a weaker (positive) association between their concurrent chronic life stress and subsequent depression (measured 6 month later) compared to a wave in which they reported less emotional capital, and

H1b-ii: spouses who generally reported more emotional capital on average across the three waves of data collection would exhibit a weaker (positive) association

between their chronic life stress in a given wave and their subsequent depression (measured 6 month later) compared to spouses who reported less emotional capital on average across the study.

METHOD

Participants

One hundred seventy-one newlywed couples were recruited to participate in a broader study of marriage. Advertisements were posted online (e.g. theknot.com, Facebook) and in local newspapers, premarital counseling offices, and wedding vendors (e.g. bridal shops, flower shops, etc.). Couples were screened to ensure they met the following eligibility requirements: (a) couples were married less than six months, (b) this was the first marriage for each partner, and (c) neither spouse had children. The current study was based on data from the 330 spouses who participated in at least one of the daily diary tasks described below.[10]

At the first wave of data collection, 75% of wives identified as White, 15.2% as Hispanic/Latina, 3.5% as African American, 2.3% as Asian American, and 4.0% as Other. Seventy-seven percent of husbands identified themselves as White, 15.8% as Hispanic/Latino, 2.3% as African American, 1.8% as Asian American, and 3.1% as Other. On average, wives and husbands were 27.1 (SD = 4.9) and 29.1 (SD = 5.3) years of age, respectively, and the majority of participants earned a Bachelor's Degree or

[10] Data from the current study has been published in the *Journal of Family Psychology* (Walsh et al., 2017), showing that emotional capital moderates the association between daily negative partner behaviors and daily relationship satisfaction.

higher (74.2% of wives and 60.3% of husbands). The median combined income of couples was approximately $60,000.

Procedure

As part of a broader study of marriage, spouses were asked to complete a large packet of questionnaires assessing general marital quality, chronic stress, perceived partner support, and depression every six months across the first three years of marriage for a total of six waves of data collection. Participants also provided demographic information in the first packet of questionnaires, completed within the first six months of marriage. In addition, spouses were also asked to complete three 14-day daily diary tasks following the packet questionnaires at Waves 1, 3, and 5, and daily reports of emotional capital were collected in each of the diary tasks. For each of the three diary tasks, spouses could choose to complete the daily surveys online or on paper. Spouses who completed paper surveys (27%) were given all 14 surveys and pre-stamped return envelopes during the lab session. They were instructed to fill out one survey each night before bed and to mail the survey the next morning. Spouses who completed online surveys (N = 73%) were given a unique identification code for logging into the survey website each evening. Spouses who completed paper surveys did not differ from those who completed online surveys in the number of daily surveys provided. Spouses provided 11,119 total daily surveys (5,521 husbands, 5,598 wives), or on average, 34 daily surveys each. Couples were paid $40 each time they completed a packet of questionnaires, $40 for each lab session attended, and up to $30 each time they completed a diary task.

Overall, 330 (96%) spouses participated in at least one diary task and 226 (69%) spouses participated in all three diary tasks. Spouses who did not provide any diary data did not differ from the rest of the sample in their initial marital satisfaction, perceived support, chronic stress, depression, or demographics. Spouses who participated in all three diary tasks did also not differ from the rest of the sample in their initial marital satisfaction, perceived support chronic stress, depression, age, or race. Spouses were slightly more likely to complete all three diary tasks if they attained a Bachelor's degree or higher ($t(168) = -1.85$, $p = .07$, $b = -0.70$, $SE = 0.38$, 95% CI [-1.19, -0.04]). Data was again examined using multilevel modeling techniques, therefore, participants who did not complete all three waves of daily diary tasks were still included in the analyses, and results are based on data from the 330 spouses who chose to participate in at least one diary task.

Measures

Chronic Emotional Capital

As part of the daily diary task administered in Waves 1, 3, and 5 of data collection, participants were presented with a checklist of 21 experiences they could have shared with their partner each day and were asked to indicate which experiences occurred (1 = yes, occurred; 0 = no, did not occur). Six of these experiences included emotional capital building experiences (e.g., "Spouse said something that made you feel loved," "Spouse showed an interest in the events of your day," "You enjoyed a leisure activity

with your spouse"). [11] Summed composite scores of the checklist items were created for each spouse on each day. The composite scores were then averaged across days for each person to create a measure of chronic emotional capital for each spouse. Because the goal of the current study was to assess whether emotional capital moderates the association between chronic stress and depression rather than daily reactivity to stress, only the chronic emotional capital measure was included in this study, with higher scores indicating greater chronic emotional capital.

Chronic Stress

As part of the packet of questionnaires, every six months participants were asked to complete a modified version of the UCLA Life Stress Interview (Hammen et al., 1987), in which they reported stress experienced across 13 different aspects of their life (e.g., financial status, work experience, and health). For each aspect, participants responded to the question "How stressful is this area of your life?" using a 9-point Likert scale (0 = not at all; 8 = extremely).[12] Because the current study focused on stress external to the relationship, the item "your relationship with your spouse" was not included in the final measure of chronic stress. Furthermore, a number of items assessed

[11] Nine of the remaining items assessed negative behaviors exchanged with the partner (e.g., "You criticized/blamed your spouse," "Spouse criticized you," and "You had an argument with spouse"). In addition, the final six items assessed instances of support exchanges with the partner (e.g., "You helped your spouse with something important" and "Spouse listened to or comforted you"). Auxiliary analyses suggest emotional capital and support exchanges are distinct processes, and research specifically focused on support exchanges (rather than perceptions of support availability) suggests that these behaviors can increase distress and are unrelated to perceived support (e.g., Gleason & Iida, 2015). Thus, these items were not included in the measure of emotional capital.

[12] Participants were also asked to indicate "How satisfied are you with this area of your life?" and "How important is this area to your overall quality of life?"; however, in order to remain consistent with Study 1a, these qualifiers were not included in the current study.

experiences that may not apply to all participants, such as various types of employment (i.e., work experience, school experience, being a homemaker, and being unemployed) and parenthood. Participants were asked to skip the items that were not applicable;[13] thus, a composite score was created by averaging participants' scores on each item they did complete. Scores could therefore range from 1 to 9 with higher scores indicating greater chronic stress. Because the current study tested the effects of chronic stress and emotional capital (assessed in Waves 1, 3 and 5) on future depression, only assessments of chronic stress from Waves 1, 3, and 5 were included.

Depression

As part of the packet of questionnaires, every six months spouses were asked to complete the Beck Depression Inventory (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) to assess their mental health. Participants were presented with 21 sets of statements and were asked to indicate which of the four statements in each set best described the way they felt in the past week. The 21 sets assessed feelings, such as sadness, guilt, and failure, as well as behaviors, such as sleep and work. The four statements within each set created a 4-point Likert scale (e.g. 0 = "I do not feel sad."; 1 = "I feel sad."; 2 = "I am sad all the time and I can't snap out of it."; 3 = "I am so sad or unhappy that I can't stand it."). Summed composite scores were created and could range from 0 to 63, with higher scores indicating greater depression (wives α =.84-.88, husband α = .84-.91). Reports of depression from all six waves of data collection were included in

[13] Because participants skipped items that did not apply to their situation, reliability statistics could not be calculated for the chronic stress scale.

the current study to assess the effects of chronic stress and emotional capital (assessed in Waves1, 3, and 5) on subsequent depression (assessed in Waves 2, 4, and 6), while accounting for previous reports of depression (assessed in Waves 1, 3, and 5).

General Marital Satisfaction

Prior to each diary task, spouses completed the 16-item Couples Satisfaction Index (CSI; Funk & Rogge, 2007) to control for general relationship quality. Spouses rated items such as "My relationship with my partner makes me happy" on a seven-point scale (0 = not at all true and 6 = completely true), while one item, was assessed on a six-point scale ("In general, how often do you think things between you and your partner are going well?"). Summed composite scores were created and could range from 0 to 95, with higher scores indicating greater marital quality (wives α =.94-.97, husband α = .95-.97). Only assessments of general marital satisfaction from Waves 1, 3, and 5 were included in this study as a time-variant covariate of depression.

Demographics

As part of the packet questionnaire completed in the first wave of data collection, participants provided their age, race, gender, and socioeconomic status (i.e., education). These demographic variables were included in the current study as covariates to control for any individual differences in depression. Age was included as a continuous measure, while race, gender, and socioeconomic status were included as dichotomous variables (race: 0 = white, 1 = nonwhite; gender: 0 = female, 1 = male; 0 = Bachelor's degree or higher, 1 = less than a Bachelor's degree).

RESULTS

Descriptive Statistics

Means and standard deviations for all variables of interest are reported in Table 20 and within-person and within-couple correlations are presented in Table 21. Across all three phases, spouses generally reported low levels of chronic stress and very few symptoms of depression. Additionally, participants reported sharing positive moments with their partner on 92% of the diary days and reported an average of approximately 3.6 shared positive moments each day. Similar to Study 1a, all predictor variables were rescaled to a 0 – 10 scale prior to conducting analyses to ease interpretation of the results.

Establishing Reactivity to Chronic Stress

Similar to Study 1a, in order to examine whether emotional capital may moderate individuals' reactivity to chronic life stress, it was first necessary to model the association between chronic stress and subsequent depression (measured six months later). I again used multilevel modeling (MLM) analyses to account for the nested nature of the data (i.e., repeated assessment nested within person, nested within couple) in a random intercept model. More specifically, I used the MIXED procedure in SAS 9.4 software (SAS Institute Inc., 2012) to simultaneously model the within- and between-person levels of analyses. Degrees of freedom were determined using Satterthwaite approximation (Kenny et al., 2006).

At the within-person level of analysis, I modeled depression (measured at Waves 2, 4, and 6; D_{ik}) as a function of previous reports of chronic stress (measured at Waves 1,

Table 20. *Descriptive Statistics for Study 1b and Study 2 Variables of Interest*

	Wave 1		Wave 2		Wave 3		Wave 4		Wave 5		Wave 6		Standardized Within-Person	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Chronic Emotional Capital														
Husbands	3.69	1.13	--	--	3.52	1.26	--	--	3.50	1.44	--	--	6.99	0.87
Wives	3.71	1.25	--	--	3.60	1.38	--	--	3.53	1.30	--	--	6.02	0.99
Chronic Stress														
Husbands	3.52	1.21	--	--	3.45	1.21	--	--	3.57	1.38	--	--	3.12	0.84
Wives	3.80	1.18	--	--	3.69	1.26	--	--	3.62	1.22	--	--	3.39	0.95
Depression														
Husbands	4.37	5.39	5.12	5.86	5.81	6.53	6.02	7.29	4.77	5.12	4.81	5.33	0.81	0.48
Wives	5.46	5.36	7.30	6.70	7.26	6.55	6.90	6.28	6.83	6.90	7.31	7.19	1.10	0.60
Perceived Partner Support														
Husbands	36.51	3.55	35.99	4.04	35.42	4.72	34.74	5.36	35.40	4.82	--	--	8.58	0.79
Wives	35.97	3.63	35.67	4.59	34.92	5.10	35.13	5.35	35.76	4.17	--	--	8.46	0.84
General Marital Satisfaction														
Husbands	83.27	10.45	--	--	78.35	13.39	--	--	77.71	14.76	--	--	8.43	0.70
Wives	84.87	9.37	--	--	78.69	14.77	--	--	80.46	13.77	--	--	8.53	0.82

Note: All means were calculated from the raw data prior to rescaling. Variable ranges are chronic emotional capital: 1-6, chronic stress 1-9, depression: 0-63, perceived partner support: 10-40, and general marital satisfaction: 0-95. Within-person statistics were attained by calculating the within-person mean and SD across all waves of data collection, then averaging those scores across the sample.

Table 21. *Correlations for Study 1b and Study 2 Variables of Interest*

	Variables	Correlations 1	2	3	4	5
1.	Chronic Emotional Capital	**0.47**	-0.15	-0.13	0.29	0.32
2.	Chronic Stress	-0.06	**0.21**	0.38	-0.20	-0.29
3.	Depression	-0.04	0.36	**0.17**	-0.25	-0.34
4.	Perceived Partner Support	0.27	-0.24	-0.32	**-0.35**	0.69
5.	General Marital Satisfaction	0.32	-0.18	-0.29	0.65	**0.58**

Note: Wives correlations are presented below the diagonal and husbands' correlations are presented above the diagonal. Bolded correlations on the diagonal are the within-couple correlations.

3, and 5; S_{ik}) and previous reports of depression (also measured at Waves 1, 3, and 5; D_{ik-1}). As described in Study 1a, including previous reports of depression is a common strategy used in MLM in order to address issues of causality. Specifically, because MLM results only provide correlational associations, modeling depression as a function of previous reports of depression from an earlier phase of data collection adjusts for the autocorrelation between individuals' depression over time. The coefficient associated with previous-phase depression is often significant and negative reflecting the tendency for regression to one's mean (i.e. if depression is high in this phase, it is likely to be lower in the next phase, etc.). This adjustment allows the outcome to be interpreted as residualized change in daily depression and the coefficients of interest in the model to represent the association between those variables and changes in depression. Therefore, in this analysis I measured residualized change in depression predicted by participants' chronic experiences of stress.

Both previous depression and chronic stress were within-person centered (centered on each spouse's average across waves) so the intercept (b_{owj}) represents each partner's depression level when their previous reports of chronic stress and depression are at that individuals' average. In addition, I also included a time variable which represents the phase in the study (P_{ik}) to account for potential changes in depression across the first few years of marriage. It should be noted that each phase included two waves of data (i.e., Phase 0 = Waves 1 and 2, Phase 1 = Waves 3 and 4, and Phase 2 = Waves 5 and 6), such that each phase includes one measure of chronic stress (e.g., Wave 1), previous depression (e.g., Wave 1), and subsequent depression (e.g., Wave 2). An error term is represented by e_{ik}. The within-person equation is:

$$D_{ijk} = (W_{ik}) * (b_{owj} + b_{1w}D_{ik-1} + b_{2w}P_{ik} + b_{3wj}Si_{k} + e_{ik}) +$$
$$(H_{ik}) * (b_{ohj} + b_{1hj}D_{ik-1} + b_{2h}P_{ijk} + b_{3h}S_{ijk} + e_{ik}) \quad (2)$$

The dependent variable (D_{ijk}) is the depression level for individual *i* (when *i* = 1, the outcome is for the wife, and when *i* = 0, the outcome is for husbands), in couple *j* at time *k*. This was a dual intercept model such than when the outcome was measured for the wife, W_{ijk} =1 and H_{ijk}= 0, the first part of the model was selected with all of the *b* coefficients maintaining the subscript *w*. When the outcome was measured for the husband, W_{ijk} = 0 and H_{ijk} = 1, the second part of the model was selected with all of the *b* coefficients maintaining the subscript *h*. The regression intercept (b_{ojk}) for the individual *i* in couple *j* represents depression approximately one year into the marriage when both

earlier depression and chronic stress (reported less than six months into the marriage) are at their projected average levels for each individual.

In order to fully separate the within- and between person effects of chronic stress, I included between-person (i.e., grand-mean) centered chronic stress at the between-person level of analysis. Doing so allowed me to include spouses' average level of chronic stress across all three phases (compared to the average chronic stress of the sample) as well as their experiences of chronic stress within each phase (compared to their own average stress across all three phases) as predictors of depression within each phase. General relationship satisfaction, race, age, and SES were also included as covariates at the between-person level of analysis. The full results from this model are presented in Table 22. Spouses' reports of chronic stress in a given phase were not associated with their subsequent symptoms of depression for wives or husbands; however, spouses who reported greater chronic stress on average across the study exhibited higher levels of depression compared to spouses who reported less stress on average.[14]

[14] This pattern of findings remained when phase, general marital satisfaction, and demographic predictors were removed from the model.

Table 22. *Basic Reactivity: The Association between Chronic Stress and Depression*

	Wives					Husbands				
	b	*SE*	*p*	95% CI		*b*	*SE*	*p*	95% CI	
				LL	UL				LL	UL
Intercept	7.56	1.08	<.001	5.43	9.69	4.37	0.96	<.001	2.48	6.26
Phase	0.21	0.29	.47	-0.37	0.80	0.06	0.25	.81	-0.44	0.55
Previous Phase Depression	-0.46	0.40	.25	-1.25	0.33	-0.77	0.38	.04	-1.52	-0.03
Previous Phase Chronic Stress	0.13	0.25	.59	-0.35	0.62	-0.26	0.24	.29	-0.74	0.22
Average Chronic Stress	1.71	0.35	<.001	1.01	2.41	1.65	0.28	<.001	1.09	2.21
Race	0.08	0.98	.94	-1.85	2.01	-0.86	0.85	.31	-2.54	0.82
Age	-0.30	0.36	.40	-1.02	0.41	0.37	0.27	.18	-0.17	0.91
SES	0.23	1.03	.82	-1.81	2.27	0.11	0.74	.88	-1.35	1.57
General Marital Satisfaction	-0.82	0.36	.03	-1.54	-0.10	-1.45	0.31	<.001	-2.07	-0.84

Note: *DF* were calculated using Satterthwaite and ranged from 143 – 291.This general pattern of findings remained when phase, general marital satisfaction, and/or demographic predictors were removed from the model.

The Protective Effects of Emotional Capital

Although spouses did not exhibit reactivity to their chronic stress on average, it is still possible for emotional capital to moderate the strength of the association between chronic stress and depression across participants. Thus, to test the moderating role of emotional capital, I ran the previous outlined models, including both within-phase and grand-mean centered chronic emotional capital in order to separate the within- and between-person effects of emotional capital. That is, I first created the chronic emotional capital measure by summing each spouse's reports of emotional capital on a given day then averaging those summed scores across all diary days within each phase. Within-person centered chronic emotional capital (centered on each spouse's average across all phases) was included at the within-person level of analysis as both a main effect and interacted with within-person chronic stress. As hypothesized, a significant negative

interaction would suggest that when individuals accumulate more emotional capital *in a given phase*, they show a weaker association between chronic stress in that phase and subsequent depression compared to when they have less emotional capital. To fully separate the within- and between-person effects, between-person (i.e., grand-mean) centered emotional capital was included at the between-person level of analysis as a main effect and interacted with within-person chronic stress. As hypothesized, a significant negative interaction would suggest that individuals who accumulate more chronic emotional capital *on average* (across phases) show a weaker association between chronic stress and depression compared to individuals with less emotional capital.

As seen in Table 23, again previous chronic stress (i.e. within-person chronic stress) was not associated with subsequent depression measured six months later for wives or husbands; however, spouses who generally reported greater chronic stress across the study exhibited higher levels of depression on average compared to spouses who generally reported lower stress. Unexpectedly, the positive main effect of previous chronic emotional capital (i.e., within-person chronic emotional capital) on subsequent depression trended toward significant, suggesting that when wives accumulated more chronic emotional capital with their husbands in a given phase, they showed slightly greater depression six months later. Previous chronic emotional capital was not associated with subsequent depression for husbands. Average chronic emotional capital accumulated across the course of the study (i.e., between-person emotional capital) was also not associated with reduced depression for wives or husbands. Turning to the

primary hypotheses, contrary to predictions, neither previous emotional capital accumulated within a given phase nor average chronic emotional capital accumulated across the study moderated the association between previous chronic stress and subsequent depression for wives or husbands. Therefore, chronic emotional capital did not buffer spouses from the harmful consequences chronic stress can have on depression in the current study, regardless of whether emotional capital was accumulated within a phase or averaged across the course of the study. [15]

Table 23. *The Moderating Effects of Chronic Emotional Capital on the Association between Chronic Stress and Depression*

	Wives					Husbands				
	b	*SE*	*p*	95% CI LL	95% CI UL	*b*	SE	*p*	95% CI LL	95% CI UL
Intercept	7.67	1.15	<.001	5.40	9.93	3.68	1.00	.001	1.71	5.66
Phase	0.34	0.31	.27	-0.27	0.94	0.30	0.27	.28	-0.24	0.83
Previous Phase Depression	-0.45	0.41	.27	-1.24	0.35	-0.83	0.39	.03	-1.60	-0.06
Previous Phase Chronic Stress	0.05	0.25	.86	-0.46	0.55	-0.25	0.26	.34	-0.75	0.26
Average Chronic Stress	1.70	0.37	<.001	0.97	2.43	1.69	0.29	<.001	1.13	2.26
Previous Phase Emotional Capital	0.45	0.25	.07	-0.04	0.95	0.38	0.26	.14	-0.13	0.88
Average Chronic Emotional Capital	0.34	0.24	.16	-0.13	0.80	0.27	0.20	.17	-0.12	0.66
Previous Chronic Stress x Previous Chronic Emotional Capital	-0.31	0.34	.35	-0.97	0.35	0.37	0.39	.34	-0.40	1.14
Previous Chronic Stress x Average Chronic Emotional Capital	-0.07	0.13	.57	-0.33	0.18	-0.06	0.13	.63	-0.31	0.19
Race	0.57	1.04	.59	-1.48	2.62	-0.83	0.87	.34	-2.55	0.89
Age	-0.36	0.40	.36	-1.15	0.42	0.60	0.30	.05	0.01	1.18
SES	-0.08	1.07	.94	-2.19	2.02	0.05	0.75	.94	-1.43	1.54
General Marital Satisfaction	-1.00	0.40	.01	-1.79	-0.22	-1.50	0.33	<.001	-2.15	-0.86

Note: *DF* were calculated using Satterthwaite and ranged from 138 – 351. This general pattern of findings remained when phase, general marital satisfaction, and/or demographic predictors were removed from the model.

[15] This pattern of findings remained when phase, general marital satisfaction, and/or demographic predictors were removed from the model.

Auxiliary Analyses

Given that between-person, average chronic stress was associated with fewer symptoms of depression while within-person, phase specific chronic stress was not associated with subsequent depression, in an auxiliary analysis I explored whether chronic emotional capital accumulated across the course of the study predicted a reduced association between *average* chronic stress and depression. In other words, rather than examining the buffering effect of chronic emotional capital on the association between within-person, previous chronic stress and subsequent depression, I tested whether chronic emotional capital moderated the association between between-person, average chronic stress and depression. To explore this possibility, I modeled depression as a function of average chronic stress (grand-mean centered), average chronic emotional capital (grand-mean centered), and the interaction between these two variables. Because there was potentially substantial overlap between the grand-mean centered chronic variables (i.e., stress and emotional capital) and the within-person centered phase specific variable due to limited repeated assessments (i.e., only three waves of data collection), I did not include within-person, phase specific stress or emotional capital. Thus, this auxiliary model was strictly a between person analyses; however, multilevel modeling was still necessary to account for the repeated assessment of the depression outcome variable and the dependency within couples. Results again indicated that although spouses who reported greater chronic stress exhibited greater depression compared to spouses with lower levels of chronic stress, chronic emotional capital did not predict

reduced depression and did not moderate the association between average chronic stress and depression (Table 24).[16]

SUMMARY

Together, the results from Study 1a and 1b suggest that the buffering effect of emotional capital may only be effective in protecting spouses' personal immediate well-being from their daily stressful experiences. It does not seem to be as beneficial for reducing the association between chronic stress and longer-term symptoms of depression. In the next study, I sought to extend the theory of emotional capital by testing an alternative way in which emotional capital may be beneficial for longer-term mental health. In Study 2, I investigated whether spouses' shared positive moments predicted feeling greater support and indirectly predicted fewer depressive symptoms.

[16] These patterns of findings remained when phase, general marital satisfaction, and the demographic covariates were removed from the model

Table 24. *The Moderating Effects of Average Chronic Emotional Capital on the Association between Average Chronic Stress and Depression*

	Wives					Husbands				
	b	*SE*	*p*	95% CI		*b*	*SE*	*p*	95% CI	
				LL	UL				LL	UL
Intercept	7.64	1.13	<.001	5.40	9.87	3.92	0.98	<.001	1.98	5.87
Phase	0.13	0.29	.65	-0.44	0.71	0.10	0.25	.69	-0.40	0.60
Previous Phase Depression	-0.36	0.39	.36	-1.14	0.42	-0.84	0.38	.03	-1.58	-0.10
Average Chronic Stress	1.71	0.36	<.001	0.99	2.44	1.69	0.30	<.001	1.11	2.28
Average Chronic Emotional Capital	0.29	0.23	.21	-0.17	0.75	0.28	0.20	.15	-0.11	0.67
Average Chronic Stress x Previous Chronic Emotional Capital	0.09	0.18	.61	-0.27	0.46	0.00	0.13	.97	-0.25	0.26
Race	0.28	1.01	.78	-1.71	2.27	-0.79	0.86	.36	-2.49	0.91
Age	-0.30	0.39	.45	-1.06	0.47	0.55	0.29	.06	-0.03	1.12
SES	0.12	1.06	.91	-1.97	2.21	0.03	0.74	.96	-1.44	1.50
General Marital Satisfaction	-0.97	0.39	.01	-1.74	-0.20	-1.50	0.33	<.001	-2.14	-0.86

Note: DF were calculated using Satterthwaite and ranged from 138 – 285. This general pattern of findings remained when phase, general marital satisfaction, and/or demographic predictors were removed from the model

Chapter 5: Study 2

Emotional capital may provide personal benefits, not only through reducing reactivity to personal life stressors, but also indirectly through increasing perceptions of support within the relationship. As previously reviewed in the introduction, emotional capital building activities, such as capitalization exchanges, are associated with greater perceptions of support. Notably, extensive empirical research has consistently documented associations between perceived support and mental health. Specifically, perceiving that close others will be available when needed in the future tends to be associated with greater positive and less negative affect (Finch, Okun, Pool, & Ruehlman, 1999), less loneliness (Pierce, Sarason, & Sarason, 1991), and better overall subjective well-being (Zhu, Woo, Porter, & Brzezinski, 2012), while lack of perceived support is associated with greater nonspecific psychological distress (Cohen & Wills, 1985), and major depression (Lakey & Cronin 2008). Additionally, perceptions of support availability tend to be beneficial in both the presence and absence of stressors (Cohen & Wills, 1985). In other words, perceiving that support will be available when needed may impact mental health by helping individuals overcome stressors when they do occur, but it also may improve mental health more simply and directly.

Based on this prior work, in the current study I examined whether perceptions of partners' support stem from couples' everyday shared positive moments and whether the accumulation of emotional capital directly and/or indirectly predicts better mental health. Using the first five waves of data collected in Study 1b, I tested whether perceived support partially explains the association between early accumulations of emotional

capital and subsequent depression. Using the previously described chronic emotional capital measure collected through daily diaries (Waves 1, 3, and 5) and questionnaires assessing perceived support (Waves 1-5) and depression (Waves 1, 3, and 5) I used an autoregressive cross-lagged model to test my prediction that that:

H2: perceived partner support would partially explain the association between emotional capital and depression, such that spouses with more emotional capital at a given wave of data collection would report greater subsequent partner support (6 months later), which will in turn would predict fewer subsequent symptoms of depression (6 months after support assessment).

Because I used an autoregressive cross-lagged model (described below), this prediction was tested while controlling for all earlier reports of both perceived support and depression as well as the potential role perceived support may in explaining the association between depression and later emotional capital (see Figure 9 for conceptual model). Additionally, including five waves of data allowed me to test these effects over the first 2.5 years of marriage; however, I did not expect these effects to change over time.

METHOD

Participants & Procedure

The data used in Study 2 was collected as part of the same broader study of marriage described in Study 1b. Thus, the sample in the current study was also comprised of the 330 newlywed spouses who completed at least one diary task described in Study 1b. Although the current study again utilized multiple waves of data collected across the

first three years of marriage, the waves from which some measures of interest were drawn changed from Study 1b to Study 2 (see Measures section below).

Measures

Chronic Emotional Capital

The measure of emotional capital used in the current study was the same measure (and data) used in Study 1b. All three waves of daily diaries and thus all three measurements of chronic emotional capital were used in the current study.

Perceived Support

To assess perceptions of support within the relationship, every six months spouses completed the social support subscale of the Quality of Relationships Inventory (Pierce et al. 1991) as part of the packet of questionnaires completed in Waves 1-6. Using a 4-point Likert scale (1 = Not at all; 4 = Very much) participants responded to ten items assessing the extent to which they felt understood by and could rely on their partner (e.g., "could you turn to your partner for advice about problems?" and "does your partner really understand your emotions and feelings?"). Summed composite scores were created and could range from 10 to 40, with higher scores indicating greater perceived support (wife α = .82-.92, husband α = .82-.91). Because the research questions were addressed using an autoregressive cross-lagged model (see Figure 9) and emotional capital was only assessed at Wave 1, 3, and 5 in the current study, only the assessments of perceived support from Waves 1-5 were included.

Depression

The measure of depression (i.e., Beck Depression Inventory; Beck et al., 1961) used in the current study was the same measure (and data) used in Study 1b. Again, because the research questions were addressed using an autoregressive cross-lagged model and emotional capital was only assessed at Wave 1, 3, and 5 in the current study, only the assessments of depression from Waves 1, 3, and 5 were included.

General Marital Satisfaction

The measure of general marital satisfaction (i.e., the Couples Satisfaction Index; Funk & Rogge, 2007) in the current study was the same measure (and data) included as a covariate in Study 1b. Because general marital satisfaction was included to control for the main effect of relationship quality on depression in the current study, only the assessments of general marital satisfaction from Waves 1, 3, and 5 were included.

Demographics

Again, the demographic information (age, race, gender, and SES) collected in Study 1b were included as covariates of depression in the current study. These measures were competed in Wave 1 of the questionnaire packets and were thus included as time-invariant covariates in the current study.

RESULTS

Descriptive Statistics & Analytic Strategy

As reported in Study 1b, means and standard deviations for all variables of interest are reported in Table 20 and within-person and between-spouse correlations are presented in Table 21. To test my predictions, I used structural equation modeling (SEM) in Mplus7.4 (Muthen & Muthen, 2015) to simultaneously model the direct effect of chronic emotional capital on depression and the indirect effect through perceived partner support across the two-year study. I used an autoregressive cross-lagged model (see Figure 9 for conceptual model) to test whether early emotional capital directly predicted depression measured one year later and whether it indirectly predicted depression through perceived support measured six months later. More specifically, depression at Wave 3 was regressed on perceived support at Wave 2, and both depression and perceived support were regressed on emotional capital at Wave 1. Additionally, depression at Wave 5 was regressed on perceived support at Wave 4 and both depression and perceived support were regressed on emotional capital at Wave 3. Thus, the direct and indirect effect of emotional capital on depression was tested across the first 18 months of marriage and between 18 and 30 months. In order to control for previous reports of emotional capital, perceived support, and depression when testing these associations, emotional capital at Wave 5 was regressed on emotional capital at Wave 3, which in turn, was regressed on emotional capital at Wave 1; depression at Wave 5 was regressed on depression at Wave 3, which in turn, was regressed on depression at Wave 1; and

perceived support at Wave 5 was regressed on perceived support at Wave 4, which in turn, was regressed on perceived support at Wave 3 and so on through Wave 1.

Although the current study focused on the effects of emotional capital on depression and the indirect effect through perceived support, I also tested the reverse association; namely, the effects of depression on emotional capital measured one year later and the indirect effect through perceived support measured six months later. Therefore, within this model, emotional capital at Wave 3 was regressed on perceived support at Wave 2, and both emotional capital and perceived support were regressed on depression at Wave 1. Additionally, emotional capital at Wave 5 was regressed on perceived support at Wave 4, and both emotional capital and perceived support were regressed on depression at Wave 3. Thus, this model tested the hypothesized direct and indirect effects of emotional capital on depression, controlling for the direct and indirect effects of depression on emotional capital.

Finally, depression at Wave 1 was regressed on the time-invariant covariates of age, race (0 = white; 1 = non-white), gender (1 = female; 0 = male), and SES (0 =

Figure 9

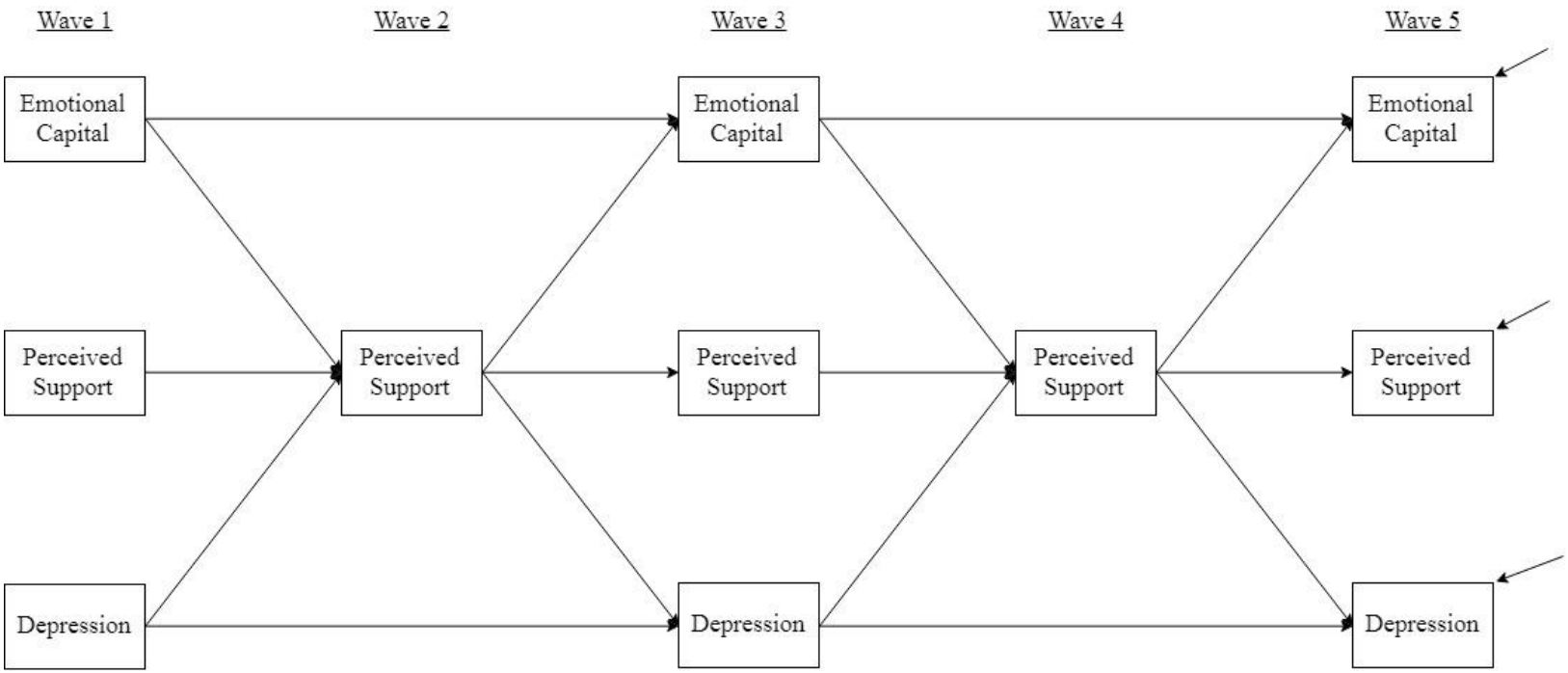

Figure 9. Conceptual model for proposed autoregressive cross-lagged analysis including five waves of data collection. Not shown are the direct effects of emotional capital at Waves 1 and 3 on depression at Waves 3 and 5, respectively, the direct effects of depression at Waves 1 and 3 on emotional capital at Waves 3 and 5, respectively, and the within wave correlations between emotional capital, perceived support, and depression. General relationship satisfaction was included as a time-variant covariate of depression at Waves 1, 3, and 5, and gender (1= male; 0 = female), age, race (1 - nonwhite, 0 = white), and socioeconomic status (0 = Bachelor's degree or higher, 1 = less Bachelor's degree) were included as time-invariant covariates predicting depression at Wave 1. The CLUSTER function was used to account for the nested nature of the data (i.e., individual report nested within couples).

Bachelor's degree or higher, 1 = less Bachelor's degree). Depression at Waves 1, 3, and 5 was also regressed on the time-variant covariate of general marital satisfaction at Waves 1, 3, and 5, respectively. Because this study involved both spouses from newlywed couples, I used the CLUSTER function to account for the dependency in the data. Full-information likelihood estimates were used to handle missing data (Muthen & Muthen, 2015) and the MLR estimator was included to account for skewness (perceived support = -1.62; depression =1.97, general marital satisfaction = -1.91) and kurtosis (perceived support = 3.64; depression =5.79, general marital satisfaction = 4.65).

The Association between Emotional Capital and Depression: Testing the Indirect Effects of Perceived Support

Results indicated that the model did not fit the data well (χ^2 (82) =496.50, p = .00, Comparative Fit Index [CFI] = 0.72, root mean square error of approximation [RMSEA] = 0.12, 95% CI [0.11, 0.13]).), thus, findings from the proposed model are uninterpretable. After making minor changes to the model (e.g., including direct effects from perceived support in Wave 1 to perceived support in Waves 3-5, etc.), acceptable model fit was still not attained.

Auxiliary Analyses

Simplified Autoregressive Cross-Lagged Model: Waves 1-3

Although the proposed model exhibited poor fit, the predicted pattern of associations was tested twice across the course of the study – within the first 18 months of marriage (i.e., Waves 1-3) and from 18-30 months (i.e., Waves 3-5). Therefore, in

order to test my hypotheses in a simpler model, I conducted an auxiliary analysis using the model outlined above but only included data from Waves 1- 3 of data collection. Additionally, because it is common practice in relationship research to test for potential gender differences by estimating unique effects for women and men within the same model, I used the GROUPING function to test the effects of wives and husbands separately. The sample used in the current study was not large enough to test for potential group differences in the proposed analyses above which included all five waves of data collection; however, this simplified auxiliary model did provide enough power to test the effects of wives and husbands separately. After making the same minor adjustments to this model (i.e. including the direct effects from perceived support in Wave 1 to perceived support in Wave 3), results indicated that the model still did not fit the data well (χ^2 (48) = 199.78, p = .00, CFI = 0.83, RMSEA = 0.14, 95% CI [0.12, 0.16]).[17] Because I did not predict that the effects would be different for wives and husbands, I conducted an additional analysis constraining all paths of interest to be equal across groups. For example, I set the path from emotional capital at Wave 1 to perceived support at Wave 2 for wives to be equal to the path from emotional capital at Wave 1 to perceived support at Wave 2 for husbands, and I did this for each path of interest. This fully constrained model was, therefore, more similar to the proposed model in which the effects for wives and husbands were not parsed due to power issues. The results from the fully constrained model showed overall poor model fit as well (χ^2 (59) = 204.29, p = .00,

[17]The simpler model testing the proposed associations without making adjustments again exhibited poor model fit (χ^2 (50) = 226.05, p = .00, CFI = .80, RMSEA = .14, 95% CI [0.13, 0.16]).

CFI = 0.83, RMSEA = 0.12, 95% CI [0.10, 0.14]) though it did not fit the data significantly worse than the unconstrained, free model (χ^2 (11) = 7.69, p = .74). Thus, given that neither the fully constrained or free model fit the data well, I could not interpret the results from these models.

Simplified Autoregressive Cross-Lagged Model: Waves 3-5

Because the predicted pattern of associations was tested twice across the course of the study – within the first 18 months of marriage (i.e., Waves 1-3) and from 18-30 months (i.e., Waves 3-5), I repeated the auxiliary analyses outlined above only including data from Waves 3-5 of data collection. Results from the model testing the unique effects of wives and husbands indicated the model did not fit the data well (χ^2 (48) = 196.47, p = .00, CFI = 0.79, RMSEA = 0.13, 95% CI [0.12, 0.15]).[18] Results from the model constraining all paths of interest to be equal across wives and husbands again did not fit the data well (χ^2 (59) = 208.33, p = .00, CFI = 0.79, RMSEA = .12, 95% CI [0.10, 0.14]). Therefore, simplifying the model to only include Waves 3-5 of data collection was again not effective for achieving good model fit and the results from these analyses cannot be interpreted.

[18]The simpler model testing the proposed associations without making adjustments (i.e., including general marital satisfaction and excluding the direct effect from perceived support at Wave 3 to perceived support at Wave 5) again exhibited poor model fit (χ^2 (50) = 238.39, p = .00, CFI = 0.74, RMSEA = 0.15, 95% CI [0.13, 0.17]).

SUMMARY

The results from Study 2 could not be interpreted. In this study, I was unable to attain adequate model fit statistics for the proposed analyses or for auxiliary models only including three waves of data collection. While spouses' experiences of emotional capital, perceived support, and symptoms of depression were highly correlated within time points (see Table 21), I was unable to examine prospective associations among these experiences.

Chapter 6: General Discussion

Time and time again, relationship science illustrates that close social ties have the ability to profoundly impact personal well-being. Whether through affiliations with friends, family members, or significant others, having warm, supportive relationships can be critical for maintaining a long, happy life (e.g., Holt-Lunstad, Birmingham, & Jones, 2008; Holt-Lunstad, Smith, & Layton, 2010). The current project examined one concrete way in which relationship experiences may impact well-being. Drawing from the theory of emotional capital, I investigated whether the activities that married couples engage in together are associated with improvements in each couple member's mental health. Specifically, the goals of the current study were to examine whether spouses' everyday shared positive moments could protect individuals from their immediate responses to daily stress and long-term responses to chronic stress experienced outside of the relationship (Studies 1a and 1b), as well as whether shared positive moments may form the foundation for feeling supported by one's partner and, thus, indirectly predict longer-term mental health benefits (Study 2). The overall findings from the current project partially supported predictions; accumulating everyday positive moments with one's partner, or emotional capital, was associated with reduced reactivity to daily stressful experiences. In other words, spouses with more emotional capital experienced better overall moods on a day-to-day basis despite life's shifting demands.

THE IMMEDIATE BUFFERING EFFECT OF EMOTIONAL CAPITAL

The theory of emotional capital, which was originally developed as a therapeutic technique to help couples overcome relationship stressors (Gottman, 1999), suggests that when partners accumulate ordinary positive moments together, they develop a resource which buffers them from any future relationship challenges. Indeed, empirical evidence has confirmed that emotional capital predicts reduced reactivity to relationship threats (Feeney & Lemay, 2012; Walsh et al., 2017). Extending this work, in Study 1a I used a 21-day diary study of long-term married couples to test my prediction that emotional capital would be associated with reduced reactivity to personal stressors external to spouses' relationships. Contrary to this prediction, chronic emotional capital, or spouses' average reports of daily shared positive experiences across all diary days, did not predict a weaker association between daily stress and daily positive mood. However, partially supporting my prediction, husbands' reports of chronic emotional capital moderated the association between their daily stress and *negative* mood. In other words, husbands who accumulated more emotional capital on average were indeed less reactive to their daily perceptions of stress and daily hassles when assessing their negative mood, compared to husbands with less emotional capital. Additionally, results from analyses exploring spouses' *daily* accumulations of emotional capital indicated that when spouses shared more positive moments together on a given day, they exhibited a weaker association between their daily perceptions of stress and daily negative mood, as well as between their daily hassles and negative mood (wives only), compared to days with less emotional capital. Daily accumulations of emotional capital was also associated with reduced

reactivity for wives' when assessing the association between their daily hassles and positive mood. These findings suggest that both daily and chronic accumulations of emotional capital have the potential to provide a buffering effect from spouses' daily responses to stress, particularly when assessing the effect of stress on negative mood.

Although I expected to observe similar effects for both positive and negative mood, positive and negative mood states are discrete affective emotions which can operate independently of one another. Research shows that positive and negative mood are distinct appraisal channels which can be activated in response to different scenarios and thus can occur simultaneously (i.e., ambivalence), in the absence of one another, or not at all (i.e., indifference; Cacioppo, Gardner, & Berntson, 1999). In fact, compartmentalizing one's emotions, such that positive and negative mood do not fluctuate together, may be one way in which individuals overcome stress (Zautra, Smith, Affleck, & Tennen, 2001). Previous research has demonstrated that while both positive and negative mood are often influenced by stress, negative mood tends to exhibit a stronger association (Ong, Bergeman, & Bisconti, 2004). Indeed, in the current study spouses' positive and negative moods varied in response to stress, with positive mood decreasing and negative mood increasing when spouses encountered greater stress, but the association did seem to be stronger for negative mood. Chronic emotional capital, therefore, may be a more effective buffer for the association between stress and negative mood because spouses experience greater variability in their negative mood on a given day as a function of their stress experienced that day.

It is also possible that the buffering effect of chronic emotional capital was not present when assessing spouses' positive mood because rather than making stress less threatening to daily positive mood, the broader, more optimistic climate that develops as spouses share more positive moments together over time is beneficial for positive mood through a different route. Namely, chronic emotional capital may more directly provide a booster shot for positive mood. The simple association between of chronic emotional capital and positive mood suggests that spouses who typically shared more positive moments together on average also showed greater daily positive mood on average. Therefore, although spouses showed a reduction in positive mood in response to daily stress regardless of their chronic accumulation of emotional capital, the boost in daily positive mood suggests that even on highly stressful days, those couples with more emotional capital were still more likely to experience greater positive mood than couples with less chronic emotional capital. Greater positive mood, can in turn, have downstream effects on stress adaptation. Empirical evidence suggests that daily positive emotions promote resiliency to daily and major life stressors (Ong, Bergeman, Bisconti, & Wallace, 2006), and similar to the theory of emotional capital, the broaden-and-build theory specifically posits that positive emotions build resources that help individuals cope with future stressors (Fredrickson 1998, 2004). Therefore, chronic emotional capital may be helping individuals achieve better mental health in two ways. First, as predicted, it may immediately protect spouses from the harmful consequences daily stress can have on

their daily negative mood. Second, it may have prolonged benefits by helping spouses achieve greater positive mood in general, fostering future stress adaption responses.

In the current study, spouses not only seemed to benefit from their average accumulations of shared positive moments over time, but they also seemed to benefit from their daily accumulations of emotional capital. Specifically, when spouses (both wives and husbands) accumulated more emotional capital with their partners on a given day, they reported greater overall positive mood and showed a weaker association between their subjective feelings of stress and their negative mood that day compared to a day when they accumulated less emotional capital. Although wives exhibited a weaker association between their daily hassles and negative mood and between their daily perceptions of stress and positive mood on days when they accumulated more compared to less emotional capital, husbands did not exhibit such benefits of daily emotional capital. The contrast effects for these associations were not significant, suggesting that the moderating role of daily emotional capital did not differ for wives and husbands. Therefore, these latter effects should be interpreted with caution.

The results from this study do consistently demonstrate that daily emotional capital seems to be particularly beneficial in helping individuals' weather through their subjective perceptions of stress (versus daily hassles). One reason may be the global nature of the perceived stress measure used in the current study. Specifically, in order to assess subjective feelings of stress, spouses responded to the prompt "Overall, how stressful was your day today?" which encapsulates all domains of life. The assessment of

daily hassles assessed potential stressors across many domains (e.g., work, transportation, friends, and children), but by nature of a checklist, certainly did not exhaust all possible hassles spouses could have faced each day. One particular hassle, "Disagreement or tension with family," was excluded from analyses in order to ensure that the hassles reflected only personal experiences occurring external to the marital relationship. The measures of overall perceived stress did not include such a caveat; thus, spouses' reports of their overall stress may have encompassed challenges from their marital and other familial relationships as well. In other words, in line with previous research demonstrating that emotional capital buffers spouses from their relationship threats when assessing their happiness in their marriage, it is possible that these results may be reflecting similar processes, namely, that emotional capital may be especially useful for buffering individuals' negative mood from their interpersonal stressors. A closer look at the daily hassles measure shows that "Disagreement or tension with family" was only endorsed on approximately 7.5% of days compared to the most common hassles, household chores and work, which were endorsed on approximately 30% and 23% of days, respectfully. Thus, it is likely that spouses were at least partially reacting to their daily perceptions of stress external to the marital relationship in the current study. Nonetheless, spouses' perceptions of stress likely encompassed additional hassles from which emotional capital is particularly effective in protecting spouses, especially their interpersonal relationships.

Daily emotional capital also may not have consistently buffered spouses from their daily hassles (i.e., the interaction was significant for wives, but not husbands, and the gender differences were nonsignificant) because sharing many positive moments with a partner on a given day may add additional challenges or time strain when the individual also experienced many hassles that day. While perceptions of stress denote individuals' overall feelings of stress on a given day, daily hassles are a count of all the specific obstacles the individual faced that day. Therefore, accumulating emotional capital on a day in which an individual juggled many other challenges, and was thus already cognitively depleted and pressed for time, may have been even more taxing for the individual's mood *that day* (Buck, 2015). Given that average accumulations of emotional capital across time (i.e., chronic emotional capital) did seem to help husbands facing daily hassles, and daily emotional capital seemed to buffer spouses from their daily subjective experiences of stress, future research should consider why daily emotional capital did not provide a buffering effect from daily hassles in the current study. For example, personal and relationship characteristics, such as gender, employment status, time management skills, division of household chores, or parenthood, may illuminate individual differences in the buffering effect or an exacerbating effect of daily emotional capital.

Although the results from this study suggest that emotional capital may be beneficial for individuals by helping them maintain better overall daily mood, the associations tested in the current work were all correlational; therefore, it is also possible

that spouses are more likely to share positive moments and accumulate emotional capital if they are already in a good mood. For example, if an individual experiences many hassles at work but is able to cope with those stressors and maintain a more positive and less negative mood, they may have more resources (e.g., energy) to engage in emotional capital experiences when they interact with their partner at the end of the day. On the other hand, those individuals whose stress impacted their overall mood may feel more depleted. As a result, those more reactive individuals may be less likely to engage in emotional capital building experiences or to interpret their shared moments as positive.

Indeed, research on couples' shared leisure time suggests that when spouses have a particularly stressful day, engaging in leisure activities together can actually *increase* the likelihood of relationship conflict (Buck 2015). In these cases, individuals' stressful experiences external to their relationship spill over into their relationship. Although the couple may attempt to share quality time together, their heightened reactivity to their stress may impact their perception of their shared experiences, reducing the likelihood of accumulating emotional capital. Individuals who are better able to compartmentalize their external stressors, parsing their life stress from their overall mood, should be less likely to experience negative consequences from shared leisure time and, thus, be more likely to accumulate emotional capital. This potential reverse association between emotional capital, responses to daily stressors, and daily mood suggests that these may be cyclical processes. In other words, accumulating emotional capital with one's partner may protect spouses form their daily stressful experiences, allowing them to maintain better overall

moods, which in turn, promotes more shared positive moments together and the accumulation of more emotional capital. Future research is necessary to determine directionality and to examine the potential bidirectional associations between these daily experiences.

Emotional Capital across the Lifespan

Individuals' age seems to be one personal characteristic which could alter the potential benefits of emotional capital. Given the unique sample utilized in this study, I explored the effects of couples' age on the buffering effect of emotional capital, and found that the benefits of emotional capital were, in part, further moderated by age. The general pattern of results suggest that emotional capital was a more effective buffer for older husbands (i.e. at least 60 years of age) compared to younger husbands (i.e., 30-45 years of age). In particular, older husbands compared to younger husbands showed a stronger buffering effect of daily emotional capital on the association between daily stress and positive mood as well as a stronger buffering effect of chronic emotional capital on the association between daily stress and negative mood. Age also moderated the interaction between chronic emotional capital and daily stress when predicting positive mood; however, neither younger nor older husbands showed a buffering effect. Although the effect of chronic emotional capital was not significant for older husbands, unexpectedly, younger husbands showed an inverse effect of chronic emotional capital, such that daily stress was more strongly associated with decreased positive mood for younger husbands with more compared to less emotional capital. It is important to note

that emotional capital was not "bad" for mood, as younger husbands with more emotional capital still exhibited overall greater positive mood compared to younger husbands with less emotional capital. The inverse effect of chronic emotional capital suggests that for younger husbands with more emotional capital, when they experienced lower stress on a given day, their positive mood was much greater than younger husbands with less emotional capital, but on highly stressful days, their positive mood was only slightly better than husbands with less emotional capital. Older husbands with more emotional capital consistently showed greater positive mood compared to older husbands with less emotional capital regardless of how much stress they experienced.

These findings extend previous theoretical and empirical research suggesting that there are socioemotional benefits of aging. Simply put, older adults tend to experience greater affective well-being compared to young adults (Carstensen, 1992; Carstensen & DeLiema, 2018; Charles & Piazza, 2009). In other words, negative affect tends to decrease across the course of adulthood, while positive affect remains stable or slightly increases. One reason affective well-being improves across adulthood is because older adults minimize or avoid adverse, stressful experiences (Charles & Carstensen, 2009; 2010) by removing negative relationships from their social network (Carstensen, Isaacowitz, Charles, 1999), disengaging from interpersonal conflict (e.g., Charles & Carstensen, 2008; Birditt & Fingerman, 2005), and/or appraising stressors in a more positive light when they are unavoidable (Story et al., 2007). Supporting prior work, in the current study, older spouses compared to younger spouses not only experienced

greater positive and lower negative daily mood, but they also reported fewer hassles, lower perceived stress, and more emotional capital (husbands only). This shift in the overall ratio of positive and negative experiences that occur as individuals age seemed to also make emotional capital an even more effective buffer for older husbands. In other words, although the positive climate that develops through couples' shared everyday positive moments together protects spouses them from their personal stress in general, in the current study, older husbands exhibited an even weaker association between their daily stress and daily mood when they accumulated more emotional capital. Thus, the current study provides an additional potential explanation for the observed socioemotional benefits of aging. Emotional capital may help older husbands develop the resources necessary to make positive appraisals in stressful contexts. As a result, older husbands, may experience greater affective well-being both because they minimize their stressful experiences, and because their everyday shared positive experiences create an even more effective buffer (compared to younger husbands) which protects them from stressors which are unavoidable. Again, the results of the moderating effect of age were exploratory in the current study and older wives did not show such enhanced benefits from emotional capital. Thus, gender may be another important individual difference when considering the ways in which emotional capital may benefit the individual members of a couple.

The Benefits of Daily vs. Chronic Emotional Capital for Wives and Husbands

Unexpectedly, there were a few significant gender differences in the current study. Namely, only husbands seemed to benefit from their chronic accumulations of emotional capital. The contrast effects denoting that the buffering effect of chronic emotional capital was stronger for husbands compared to wives was significant and trended toward significant when observing the effects daily perceptions of stress and daily hassles have on negative mood, respectfully. These gender differences may stem from variations in spouses' attention to or importance attributed to general, or average, experiences over time compared to discrete day-to-day events. Past research suggests that when compared to wives, husbands tend to be more affected by their overall relationship climate. For example, although women's evaluations of their partners' support stems from their discrete, immediate relationship experiences, such as conversations with their partner, men's evaluations tend to be based on distal factors, such as marital happiness (Carels & Baucom, 1999; Sanford, 2005). This suggests that husbands may be more likely take into consideration their general relationship experiences when evaluating their relationship functioning. The current study extends this idea by demonstrating that only husbands seemed to personally benefit from their chronic emotional capital and general relationship climate. Furthermore, although previous research has shown that wives are more attuned to their day-to-day transactions (Actelli, 1992), in the current study, wives and husbands equally benefited from their daily accumulations of emotional capital. In other words, both wives and husbands seem to personally benefit from their daily emotional capital when assessing the association between daily perceptions of stress and

negative mood, and there were no significant gender differences in the effectiveness of daily emotional capital in any analysis. Therefore, the effectiveness of emotional capital only seems to differ for wives and husbands, at the global, chronic level.

Summary

Whether through daily accumulations or average accumulations of emotional capital over time, couples daily shared positive moments do seem to help them weather their personal life stress and the immediate, harmful consequences stress can have on daily mood, especially negative mood. Importantly, in the current project, I controlled for individuals' neuroticism, or trait-level emotional reactivity, and spouses' general marital satisfaction; thus, the current findings suggest that the frequency of shared positive moments with a partner predicts reduced reactivity above and beyond the effects of these other variables. In this way, this work extends prior research documenting the associations between general relationship quality and personal health and well-being (Holt-Lunstad, Birmingham, & Jones, 2008) by highlighting the importance of discrete daily behaviors for personal well-being.

Future research is necessary to continue exploring the potential variations in the effectiveness of emotional capital for both personal and relationships well-being. Studies developed to specifically test individual differences in the benefits of emotional capital (e.g., gender and age) may illuminate critical populations for whom emotional capital interventions could be particularly beneficial. Additionally, specifying the frequency in which couples need to engage in positive moments together to benefit from emotional

capital would be necessary before intervening with couples. For example, is it effective to share many positive moments together sporadically, or does one hug a day keep bad moods at bay? Finally, exploring the potential negative consequences emotional capital may have for personal well-being is vital for understanding the reach and potential of the theory. For example, sharing positive moments on a day with many hassles may be overwhelming for some spouses and, thus, may further undermine rather than benefit mental health. Future research should consider a darker side of emotional capital and whether there are situations in which "less is more."

Taken together, the results from Study 1a compliment and extend existing research on couples shared quality time in a number of ways. First and foremost, this study emphasizes the critical role everyday positive moments shared with one's partner can play in protecting daily mental health from personal stressors occurring external to the marital relationship. These finding build on previous research documenting links between relationships processes, personal stress, and mental health. For example, although experiencing stressful life events is one of the strongest predictors of depression (Hammen, 2005; Kessler, 1997), high quality relationships are the strongest predictor of general life satisfaction and happiness (Glenn & Weaver, 1981; Holt-Lunstad, Birmingham, & Jones, 2008). The current study demonstrates that building resources, or emotional capital, may be one reason relationship quality promotes better mental health, by reducing the harmful impact of stress. Additionally, although previous research has demonstrated that daily stress experienced outside of the relationship, can spill over into

the relationship and undermine relationship processes (Bolger, DeLongis, Kessler, & Wethington, 1989; Repetti, 1989; Neff & Karney, 2004), this project suggests that couples' positive exchanges can also spill over into their personal lives, reducing the harmful impact stress can have on mental health. Understanding the bidirectional and interactive associations between relationship experiences, stress, and mental health can promote more holistic approaches to overcoming challenges internal and external to relationships.

THE LONGER-TERM BUFFERING EFFECT OF EMOTIONAL CAPITAL

Extending Study 1a, the goal of Study 1b was to investigate potential longer-term benefits of emotional capital. In other words, while Study 1a demonstrated that accumulating everyday positive moments together buffers spouses' daily responses to personal stressors, in Study 1b I used three waves of 14-day daily diary tasks collected from newlywed spouses to examine whether emotional capital also buffers spouses' mental health prospectively. In line with my initial findings that emotional capital seemed to be particularly beneficial in protecting spouse's negative mood, I predicted that spouses would be less reactive to their chronic stress, exhibiting a weaker association between their chronic stress and future symptoms of depression (six months later), when they accumulated more compared to less chronic emotional capital within a given diary task. I also predicted that spouses who generally accumulated more chronic emotional capital across the course of the study would be less reactive to their chronic stress compared to spouses who generally accumulated less emotional capital on average.

Unfortunately, neither of these predictions was supported in the current study. Moreover, results did not reveal a significant association between spouses' reports of chronic stress and their subsequent depressive symptoms. In other words, although spouses who generally reported greater chronic stress across the course of the study did show more depressive symptoms on average when compared to spouses who generally reported lower chronic stress, experiences of chronic stress at a given time point was not predictive of future symptoms of depression. Although I expected spouses to experience greater depression following particularly stressful times in their lives, this lack of association suggests that spouses were not reactive to chronic stress. It is not surprising, then, that emotional capital did not predict reduced reactivity to chronic stress either.

Given that the association between stress and depression has been well established (Hammen, 2005; Kessler, 1997) there are a number of potential reasons why spouses' reports of chronic stress at a given time did not predict future symptoms of depression in the current study. First, spouses reported very low levels of chronic stress; thus, this particular sample may not have encountered enough stress to alter their mental health, especially their depressive symptoms, six months later. Second, the way chronic stress was calculated in the current study, may have obstructed existing associations between chronic stress and later symptoms of depression. For example, I assessed chronic stress using a composite score in which spouses rated their subjective stress in 12 different domains (e.g., work experience, school experience, being a homemaker, and being unemployed); however, spouses were asked to skip domains that were inapplicable

to their current situation (e.g., skip the item asking about school stress if one is not in school). Thus, the composite score assessed spouses' average reports of stress across the relevant domains, but did not assess the number of distinct life domains in which people were experiencing stress. It is possible, for instance, that a spouse who rated five domains as highly stressful at one time point, rated nine domains as highly stressful at a later time point. Although those two phases could have been quantitatively equivalent, the stress aggregated across the nine domains could have been subjectively more extreme than the phase in which only five domains were endorsed. Additionally, in order to report chronic stress, participants reflected on their experiences over the previous six months. Thus, in my analytic strategy, retrospective assessments of stress were used to predict future symptoms of depression. It is possible that the time between the actual stressful experiences (rather than the time when it was reported) and the outcome assessment of depression were too far apart to detect an association.

The sample of spouses who participated in this study, on average, reported low-levels of depression across the course of the study (see Table 20 for means and standard deviations for each phase). Not surprisingly, it is difficult to demonstrate a buffering effect of depression in a sample in which very little depression is reported. There is, however, the possibility that between-person averages in depression masked substantial within-person variation. There is no established threshold for what constitutes problematically low within-person variability, but as shown in Table 20, which contains the standardized within-person mean and standard deviation of each measure, depression

was particularly low in within-person variability. The overall low levels of depression combined with the lack of substantial within-person variation, suggests that future research should focus on participants whose depression rates are more likely to vary (e.g., new parents, individuals with a previous diagnosis of depression, etc.) in order to adequately test the potential long-term buffering effect of emotional capital. It is also possible that emotional capital simply does not provide a buffering effect from the consequences chronic stress can have on depression. In a simplified auxiliary analysis including only the effects of between-person, average chronic stress and emotional capital on depression assessed each time point, the predicted effects of chronic emotional capital were again not supported.

Future research is still necessary to confirm that the results of Study 1b are robust and emotional capital does not have a long-term buffering effect on mental health; however, the results of the first two studies currently suggest that emotional capital may only provide immediate benefits. This can have important implication for the theory and our understanding of the accumulation of shared positive moments. Namely, there may be an expiration date on emotional capital experiences. Although sharing everyday positive moments with a partner seems to promote a broader, more optimistic context in which the relationship and/or personal stressors can be evaluated and assessed as less threatening, that positive climate may need to be *continuously maintained* in order to produce lasting benefits. The positive moments couples share together in a given week or month can help them overcome the stressors they are currently facing; however, those

shared moments do not seem to continue providing a buffer in the following months. Rather, it seems that partners "must perpetually invest in their relationships… to foster resilience," (Afifi et al., 2016, p. 663).

Alternatively, it may be even more advantageous to investigate longer-term benefits of an immediate buffering effect. Although emotional capital accumulated at a given time does not seem to buffer spouses' future well-being from their current stressors, maintaining more positive and less negative moods on a daily basis may be the key to seeing lasting improvements in mental health. Specifically, one reason stress seems undermine well-being is due to stress pile-up (Randall & Bodenmann, 2009). When individuals are unable to reduce their stress either because they do not dedicate or have the necessary resources to deal with their stressors, the stress builds up and the cumulative effects of even minor, persistent stressors can be detrimental. However, because accumulating emotional capital can have a protective effect, buffering spouses from their stress on a day-to-day basis, they may be able to hit a "reset button" each day and prevent those minor stressors from accruing. In other words, sharing positive moments may promote more effective daily coping, which reduces the tendency for minor stress to linger and contribute to the development of chronic stress. As a result, emotional capital may be beneficial for longer-term mental health because it reduces the likelihood of encountering chronic stress rather than directly protecting individuals from that chronic stress. Additionally, by simply promoting more positive moods on a daily basis, emotional capital may promote better mental health prospectively by helping

individuals develop resources over time that help them cope with stressors in highly adaptive ways (e.g., humor, creative problem solving, optimism, and growth mindset), thus, promoting resiliency to future stress as well (Fredrickson 1998, 2004).

EMOTIONAL CAPITAL & PERCEIVED SUPPORT IN THE EARLY YEARS OF MARRIAGE

The final goal of this project was to investigate the idea that emotional capital may not only promote personal well-being by reducing reactivity to daily stress, but also by helping individuals develop a resource that promotes better long-term mental health. Specifically, in Study 2, I used the data collected in Study 1b to investigate whether accumulating positive moments predict greater perceived support from one's partner six month later, and whether that feeling of support, in turn, predicted fewer symptoms of depression another six months later. Unfortunately, again, I did not find evidence for these predictions. The proposed model, as well as all auxiliary models, showed poor model fit when analyzing the data in Study 2; therefore, I was unable to interpret the results from this study.

The sample of newlywed spouses who participated in Study 1b and Study 2 are a unique sample to investigate temporal changes in depression and associations between emotional capital, perceived support, and depression over time. A benefit to using this sample is the similarity in relationships stages of the participants; all couples were in the first six-months of marriage during Wave 1 of data collection and follow up assessments were administered approximately every six months. However, as previously discussed,

this lack of variability may have obscured some meaningful associations in the current study.

STRENGTHS & LIMITATIONS

There are a number of strengths in the current project that enhance my confidence in the findings presented here. First, I used daily checklists of couples' everyday shared positive moments to assess emotional capital. Because spouses reported the occurrence of events each day, it is less likely that their responses would be influenced by retrospective bias or their global evaluation of their relationship at the time of reporting (Bolger, Davis, & Rafaeli, 2003). Second, I used reports from both couple members which allowed each spouse to independently report their emotional capital experiences. Although partners should theoretically have the same "emotional bank account" as they make contributions *together*, each individual brings their own characteristics, expectations, and motivations to an interaction and may evaluate each interaction differently (Reis & Shaver, 1988), which may result in spouses accumulating emotional capital differently. Thus, analyzing each couple member's report of shared positive moments is a more accurate assessment of the ways in which emotional capital can be beneficial. Finally, I also accounted for each spouse's neuroticism and general marital satisfaction in the analyses. Including these variables allowed me to control for trait-level affective instability and negative emotionality when evaluating fluctuations in day-to-day mood and to control for the documented association between general marital happiness and personal well-being.

Nonetheless, there were also limitations to the studies reported in the current project. For example, the finding that daily emotional capital buffered spouses from the consequences of daily perceived stress but not daily hassles in Study 1a may have been an artifact of the subjective stress measure encompassing more life domains, especially interpersonal conflict, rather than substantive differences between perceptions of stress and the number of challenges an individual encounters. Future studies using more equivalent daily perceived stress and daily hassles measures may illuminate whether emotional capital is indeed a more effective buffer for one type of stress assessment. Understanding the potential differences in the effectiveness of emotional capital is important before attempting to encourage couples to incorporate more shared positive moments into their daily lives to gain personal benefits for their well-being.

The correlational nature of the associations reported in Study 1a is another limitation in the current project. I included the lagged effect of daily mood in order to assess residualized change in daily mood, which begins to address issues of causality; however, given that mood was modeled as a function of same-day stress and same-day (daily) emotional capital, causal claims cannot be made regarding the daily associations reported in the current project. Similarly, the effects of chronic emotional capital were also correlational, as the variable was assessed by creating a between-person (grand mean centered) average score of emotional capital across all diary days. Although it is common to evaluate between-person differences in this way, it does mean that reports of emotional capital later in the study (e.g., in daily surveys completed in the third week of the study)

were included in the measure even when examining the buffering effect of chronic emotional capital earlier in the study (e.g., on the associations between daily stress and daily mood in the first week of the study). One reason daily diary research continues to utilize between-person variables in this way is because daily surveys represent a snapshot into couples' day-to-day lives. In other words, researchers expect continuity in individuals' experiences directly preceding and following the daily surveys.

Applying the notion of continuity to the current study, I would expect spouses to report similar moods, levels of stress, and emotional capital experiences before, during, and after data collection. Unfortunately, while continuity is assumed in daily diary research, I was unable to evaluate whether spouses who generally reported more emotional capital within this study were in fact the same spouses who generally experienced more emotional capital before the study began. I was able, however, to examine continuity *within* the study by comparing spouses' average emotional within a given week of the study to their average emotional capital reported in earlier and/or later weeks. Average emotional capital was significantly and positively correlated across all three weeks of the dairy task for both wives and husbands (r range = 0.65 – 0.79, all $p <$ .001), such that spouses who generally reported greater emotional capital later in the study also reported more emotional capital earlier in the study. These correlations do suggest that spouses' experienced continuity in their emotional capital across the course of the study, thus, providing some support for the use of chronic emotional capital as it was assessed in the current study. However, because these correlations were only

examined within the daily diary task from which the measures of daily stress and daily mood were also drawn, future research is still necessary to determine the direction of effects in the currently study.

The null results from Study 1b and Study 2 suggest that emotional capital does not provide a buffer for future mental health or directly predict future perceived support or depression; however, a number of limitations temper these results. For example, model fit was an issue for Study 2, such that I was unable to interpret the results from the proposed and auxiliary models. Beyond potential analytic issues, the data used to test longer-term benefits of emotional capital may have obscured meaningful associations. Specifically, Study 1b and Study 2 relied on the data from happily married newlywed couples who reported low levels of chronic stress, few symptoms of depression, and little variability in their depression over time. This unique sample may have, therefore, limited the conclusions I could draw from these studies. Future research investigating associations between emotional capital and personal well-being should consider collecting data from more diverse couples, such as the sample used in Study 1a or more distressed couples who may experience greater stress as well as greater within- and between-person variability in their stress and mental health. Additionally, depressive symptoms are only one mental health outcome that could be associated with emotional capital. Investigating other outcomes, such as life satisfaction or anxiety, as well as other resource which may develop as couples share positive moments together may illuminate longer-term benefits of emotional capital. Finally, specifically testing the lasting benefits

an immediate buffering effect of emotional capital can have on personal well-being is another important direction for future work.

CONCLUSION

The proposed project extends previous research documenting the many personal benefits of high-quality romantic relationships by discerning which aspects of those relationships provide positive effects for mental health. Furthermore, this project aimed to identify the processes through which relationship experiences promote such benefits. Extending the theory of emotional capital, I found that couples' shared concrete, positive exchanges can provide immediate benefits for mental health. Specifically, when spouses accumulated more emotional capital, they not only reported better overall daily mood, but also exhibited reduced reactivity to their daily stress. In other words, spouses' daily mood seemed to be less tied to their daily perceptions of stress on days when the accumulated more emotional capital, and husbands maintained better daily mood in the face of both daily perceptions of stress and daily hassles if they typically accumulated more emotional capital on average across the course of the study. Emotional capital, however, only seemed to benefit couples on a day-to-day basis; it did not buffer spouses from the longer-term consequences of chronic stress, did not help spouses feel more supported in their relationships, and did not predict fewer symptoms of depression prospectively. The proposed project illuminates important intervention opportunities in which couples could be encouraged to engage in small daily positive experiences together to mitigate the negative effects of daily stress. Although sharing positive moments together may only

provide a brief boost in positive mood and mitigate the harmful consequences of daily stress, when consistently accumulating emotional capital together, these short-term benefits may have downstream effects on resiliency to major life stressors and better mental health. The results from the current project suggest that at a minimum, couples who share more positive moments together are more likely to live happier and healthier day-to-day lives.

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